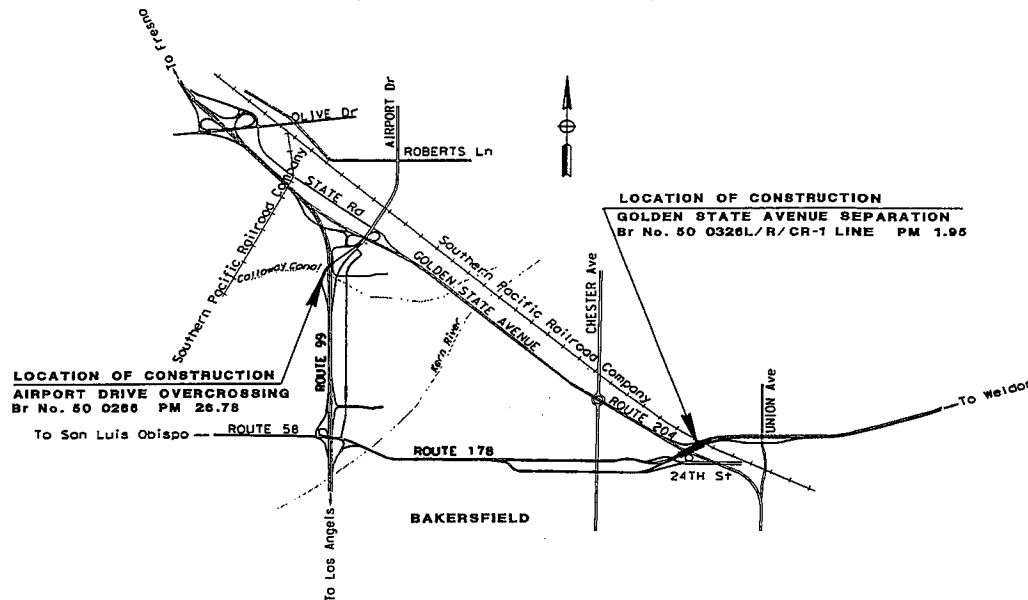


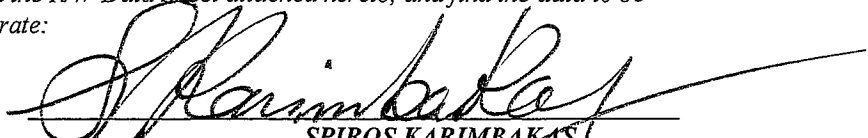
06 - Ker - 99,178 - 26.78,R1.95
RU: 1458, EA: 06-0K810K
Project ID: 0612000108
20.10.201.113
October/2011

PROJECT SCOPE SUMMARY REPORT (Seismic Retrofit)



On Route 99 and 178 in Kern County
in Bakersfield at Airport Drive Overcrossing
and at Golden State Avenue Separation

I have reviewed the right of way information contained in this Project Scope Summary Report-Seismic Retrofit, and the R/W Data Sheet attached hereto, and find the data to be complete, current, and accurate:


SPIROS KARIMBAKAS
DEPUTY DISTRICT DIRECTOR - RIGHT OF WAY

APPROVAL RECOMMENDED:

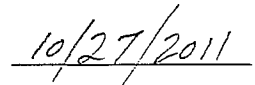
APPROVAL RECOMMENDED:


JUDY AGUILAR
PROJECT MANAGER


SAM KATICH
SEISMIC RETROFIT COORDINATOR

APPROVED:

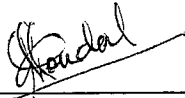

SHARRI BENDER EHLERT
INTERIM DISTRICT 6 DIRECTOR


10/27/2011
DATE

PROJECT SCOPE & TECHNICAL DATA ARE VALID THROUGH: 10/26/2013
COST & WORK PLAN MUST BE UPDATED PRIOR TO USE FOR PROGRAMMING.

06 - Ker - 99,178 - 26.78,R1.95
RU: 1458, EA: 06-0K810K
Project ID: 0612000108
20.10.201.113
October/2011

This Project Scope Summary Report-Seismic Retrofit has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



RANJIT K MONDAL
REGISTERED CIVIL ENGINEER

10/24/2011
DATE



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1. INTRODUCTION

The project was initiated for seismic restoration on State Route 99 at Airport Drive Overcrossing and on State Route 178 at Golden State Avenue Separation. The conceptual report and Structure Replacement and Improvement Needs (STRAIN) report identified deficiencies of the four bridges in this project. The project is located in Kern County on State Route 99 at PM 26.78 Br No. 50 0266 - Airport Drive Overcrossing and on State Route 178 at PM R1.95 Br No. 50 0326L/R/CR-1 Line - Golden State Avenue Separation. The Br No. 50 0266 was built in 1963 and Br No. 50 0326L/R/CR-1 Line were built in 1967. The project will eliminate the deficiencies and provide safety against seismic event by retrofitting the bridges to conform to current standard. The estimated construction capital cost of the project is \$6,120,000 and the escalated Right of Way capital cost is \$45,000. The project is proposed to be funded from District Major Capital Outlay Fund, Seismic Restoration Program (201.113), in the 2015/2016 fiscal year.

2 RECOMMENDATION

It is recommended that the project be approved for programming in the 2012 SHOPP for Bridge Seismic Restoration Program 201.113 with funding in the 2015/2016 fiscal year. A Supplemental PSSR would be prepared for project approval. The programming performance indicator for this project is 4 bridges restored.

3. LOCATION AND PROBLEM

Location:

<u>Bridge No.</u>	<u>Name of Bridge</u>	<u>Dist-Co-Rte-PM</u>
Br No.: 50 0266	Airport Drive Overcrossing	06-Ker-99-26.78
Br No.: 50 0326L	Golden State Avenue Separation	06-Ker-178-R1.95
Br No.: 50 0326R	Golden State Avenue Separation	06-Ker-178-R1.95
Br No.: 50 0326CR-1 Line	Golden State Avenue Separation	06-Ker-178-R1.95

Problem:

Division of Structure Design conducted an Advance Planning Study (APS) on the bridges. Assumptions made in the APS could have significant impacts on the cost, scope, and schedule of the project. Therefore, these project elements need to be further refined at the PS&E level. Based on the APS the scope of work of the bridges is presented below:

Airport Drive Overcrossing Br No. 50 0266:

- Existing restrainers are type C-1 restrainers at hinge locations.
- Need attention to the columns which are designed with #4 ties at 12" c/c. To help facilitate inadequate ductility inherent in the columns it is proposed to install full height steel column casing on all columns.
- The columns at bent #2 have a very high percentage of steel creating a very stiff column which could cause bent cap/column interact problem during a seismic event. More analysis of this bent is needed.

Golden State Avenue Separation Br No. 50 0326L/R/CR-1 Line:

- Existing restrainers are type C-1 restrainers at hinge locations.
- Existing columns are inadequate in ductility.
- There are short seats structurally weak bent caps at bents 5 and 6.
- All three bridges will have abutment 1 seat extenders.
- There is single column bent at bent 3 for Br No. 50 0326CR-1 Line. There is no top mat in the footing which could lead to a potential footing failure during seismic activity.

4. PROPOSALS

Airport Drive Overcrossing Br No. 50 0266:

- Existing C-1 restrainers will be removed and replaced with pipe seat extenders at hinge locations.
- Full height steel column casings will be installed on the columns to help facilitate the inadequate ductility inherent in the columns.
- Bent cap for bent 2 will be retrofitted to strengthen the existing bent cap and insure that all plastic bending is forced into the columns.
- The metal beam guard railings at outside shoulders of SR 99 under the bridge will be removed to facilitate retrofitting works at bent 4 and bent 6 and will be reconstructed to current standard. A new concrete wall will be installed connecting the bridge columns and the MBGR will be connected with the concrete wall.

Golden State Avenue Separation Br No. 50 0326L/R/CR-1 Line:

- Existing C-1 restrainers will be removed and replaced with pipe seat extenders at hinge locations.
- Full height steel column casings will be installed on the columns to help facilitate the inadequate ductility inherent in the columns.
- Bent 5 will be widened by 1'-6" on each side and bent 6 will be widened by 1'-6" on one side to strengthen and allow greater margin of safety to prevent a girder from becoming unseated. A more in-depth analysis is required for bent 6.
- All three bridges will have Abutment 1 seat extenders.

- The footing of single column bent at bent 3 for CR-1 Line will be enlarged in all dimensions and additional piles will be installed to upgrade the footing capacity. Along with the footing retrofit, as in the case with all columns, will be a full height steel casing for bent 3.

No work is proposed in the upper roadway. No pedestrian features are affected.

Since this is a seismic restoration project, deficiencies known to the decks and railings will not be improved under this project. HQ SHOPP Program Advisor, Roger Hunter, concurs with this decision.

This project proposes to correct the seismic deficiencies and the identified structures will conform to Caltrans guidelines in terms of safety for public use.

There are no non-standard features proposed in this project.

5. CORRIDOR AND SYSTEM COORDINATION

The proposed project is in conformance with the current Transportation Concept Report (TCR). The proposed seismic retrofit would not result in any incompatibility to future improvement of the facilities.

6. PROJECT FACTORS

Environmental Status:

A Preliminary Environmental Analysis Report (PEAR) dated October 12, 2011, was prepared (Attachment E).

Environmental Issues:

The anticipated environmental document for the proposed project is a Mitigated Negative Declaration/Categorical Exclusion 6004. This document level has been selected based on the impacts to kit fox habitat which is anticipated to be mitigated below the threshold of significance as defined by CEQA. The California Department of Transportation would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/California Environmental Quality Act) environmental document. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The estimated time to obtain environmental approval is 12 months from the start of environmental studies.

It is anticipated multiple environmental studies and reports will be required for this project including but not limited to: Initial Site Assessment, Historic Property Survey Report, Historical Resources Evaluation Report, Natural Environmental Study,

Biological Assessment and section 7 consultation with the U.S. Fish and Wildlife Service (USFWS).

Biology:

Biological surveys and studies are required. Potential impacts to the San Joaquin kit fox would require a Biological assessment and consultation with mitigation under programmatic agreement. Special Provisions for migratory birds (swallow), San Joaquin kit fox, and Environmentally Sensitive Area would be necessary. Swallow exclusion is anticipated. There are wetlands within the project limits. A Natural Environmental Study and Biological Assessment would need to be completed for an informal section 7 Consultation. The impacts to kit fox habitat are expected to be minimal with mitigation measure. A pre-construction survey and incidental take permit from the California Department of Fish and Game will be required.

Cultural Resources:

Due to the urban environment and past construction activities, it is assumed that no archaeological sites would be located within the project area. The Golden State Avenue Undercrossing carries State Route 178 over State Route 204 and is listed on the California Historic Bridge Inventory as Category 5 rating (Ineligible for the National Register). A recent study conducted in the project area found that SR 204 was eligible for inclusion in the National Register of Historic Places. While the bridge does not contribute to the eligibility of State Route 204, the project cannot be considered for screening in accordance with Caltrans Section 106 Programmatic Agreement.

Hazardous Waste:

Hazardous waste concerns for this project include asbestos-containing materials in structures, lead-based paint system, and aerially deposited lead contamination. Hazardous waste technical studies would include review of the bridge structures for asbestos-containing materials. An Initial Site Assessment and a Preliminary Site Investigation would be done to determine the extent of potential hazardous material contamination and to recommend proper handling and disposal of any found material.

Materials and or Disposal Site:

Materials and/or disposal sites may be needed for this project.

Air Quality Conformity:

The proposed project would not impact local air quality.

Noise Study:

The proposed project is not considered Type 1 under NEPA. No further analysis is necessary.

Highway Planting and Irrigation:

Efforts should be made during the design stage of this project to preserve as much vegetation as possible. Construction activities may damage or require the removal of existing trees, shrubs and other vegetation and irrigation components. Any vegetation or irrigation that is damaged or removed from within the state right of way as a result of the proposed construction activities will be replaced.

Storm Water Compliance:

A Storm Water Data Report has been prepared. Project activities do not create more than 1 acre of disturbed soil area (DSA), therefore, a Stormwater Pollution Prevention Plan and Notice of Construction are not required. Under Caltrans own minimum standards require implementation of a Water Pollution Control Program (WPCP), which should adequately address protecting surface water quality from pollution.

Right of Way:

All works will be carried out within the existing right of way. No additional right of way will be required for this project.

Rail Road:

There is no railroad property involved.

Utilities:

It is anticipated that no utility relocation will be required. A utility permit search will be conducted to further investigate any utility involvement for this project.

Right of Way Capital Cost:

Right of way capital cost is required for this project for environmental mitigation (Attachment E).

Permits:

The following permits would be required for this project:

- Section 401 certificate from the State of California Regional Water Quality Control Board.
- Section 404 Nationwide Permit from U.S. Army Corps of Engineers.
- Section 1600 Streambed Alteration from Department of Fish and Game.
- NPDES Coordination.
- 2081 Permit State only incidental take of threatened or endangered species.
- Permit from North Kern Water Storage District to work on Calloway Canal.

Concurrent Work:

It is anticipated that no other separate project conflicts at the project locations.

Consequences of Not Doing This Entire Project:

The identified structures will remain seismically deficient and not meet current Caltrans standards.

Value Analysis:

A value analysis study is not required for this project.

Other Information:

This project was selected as an accelerated project for programming in the 2012 SHOPP cycle. Due to the very short time available to develop this project, the Project Development Team and the District have taken various risks in presenting this project for programming.

This project originally consisted of four bridges (Br No. 50-0266, 50-0326L/R, and 46-0056L) in Kern and Tulare Counties that were identified in the Structure Replacement and Improvement Needs (STRAIN) Report as needing seismic restoration work. In September, 2011, Br No. 46-0056L was removed from the project and another bridge (Br No. 50-0326CR-1 Line) added into this project.

7. TRANSPORTATION MANAGEMENT

Transportation Management Plan:

Preliminary traffic impacts and mitigation for this project have been outlined in the attached (Attachment G) Transportation Management Plan Data Sheet (TMP Data Sheet). Costs associated with the traffic impact mitigation measures listed in the TMP Data Sheet have been included in this documents estimate.

A TMP for this project is required and should be requested when the design is complete enough to determine specific traffic impacts, but yet early enough to make design changes/additions required for traffic mitigation.

Lane closure charts and detailed TMP will be provided during PS&E stage.

Lane closures are not allowed when the traffic volume is beyond the capacity of the remaining lanes. Nighttime work outside peak hours is anticipated for this project.

Vehicle Detection Systems:

There is no vehicle detection system proposed within this project.

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

The Anticipated Environmental Determination/Document is Negative Declaration/Mitigated ND/Categorical Exclusion 6004.

9. PROJECT FUNDING/SCHEDULING

The project will be funded from the District Major Capital Outlay Fund, Bridge Seismic Restoration Program HA21 (201.113), in the 2015/2016 Fiscal Year.

Cost Estimate:

Proposed funding HA21 (201.113)

STRAIN and other Structural Work (by Structure)		<u>Yes/No</u>	<u>*Cost</u>
(A)	Replace		_____
(B)	Rehab		_____
	(a) Deck		_____
	(b) Superstructure		_____
	(c) Substructure		_____
	(d) Joints		_____
	(e) Bearings		_____
	(f) Other		_____
(C)	Scour Correction		_____
(D)	Painting		_____
(E)	Widening		_____
(F)	Rail Replacement (without widening)		_____
(G)	Strengthen		_____
(H)	Seismic Retrofit		<u>\$3,944,000</u>
(I)	Vertical Clearance Adjustment		_____
(J)	Drainage Rehab		_____
(K)	Other		_____
STRUCTURE COSTS SUBTOTALS (includes contingency)			<u>\$3,944,000</u>
District Work			
(A)	Traffic Control		<u>\$314,000</u>
(B)	Transportation Management Plan		<u>\$411,000</u>
(C)	Clearing and Grubbing		<u>\$25,000</u>
(D)	Bridge Approach Guardrail/Barrier/Dike etc.		<u>\$94,300</u>
(E)	RE Office Space		<u>\$50,000</u>
(F)	Rock Slope Protection		_____
(G)	Utility Relocation		_____
(H)	Railroad Agreements		_____
(I)	Right of Way Capital		_____
(J)	Environmental Compliance		<u>\$218,000</u>
(K)	Stormwater Compliance		<u>\$160,000</u>
(L)	Roadside Management		_____

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Pavement beyond Gore Area	_____
Minor Concrete (Island Paving)	<u>\$5,000</u>
Maintenance Vehicle Pull outs	_____
Off-Freeway Access (gates, stairways, etc.)	_____
Roadside Facilities	
(M) Minor Items/Mobilization/Supplemental Work etc.	<u>\$435,936</u>
(Minor items-10%, Mobilization-10%, Supplemental Work-10%)	<u>\$1,798,236</u>
SUBTOTALS	<u>\$1,798,236</u>
Contingency (25%)	<u>\$374,633</u>
DISTRICT COSTS SUBTOTALS	<u>\$2,172,869</u>
<hr/>	
SUM OF SUBTOTALS	<u>\$6,116,869</u>
Right of Way Capital	<u>\$36,930</u>
TOTAL PROJECT COST	<u>\$6,153,799</u>

Capital and Support Cost Summary:

(Capital Cost Estimate provided by Design & R/W, Support Cost Estim
 from XPM.)

Project Cost Component	Fiscal Years						Total
	12/13	13/14	14/15	15/16	16/17	17/18	
R/W Capital			\$45				\$45
Const. Capital**				\$6,980			\$6,980
PA&ED*	\$280						\$280
PS&E*		\$1,314					\$1,314
R/W Support*				\$20			\$20
Const.Support*					\$1,500		\$1,500
Total	\$280	\$1,314	\$45	\$7,000	\$1,500	-	\$10,139

All costs X\$1000. Support Categories are the same as those identified by SB 45.

Construction Capital escalated at 3%. Right of Way Capital estimate is escalated.

Support cost escalated at 3.1%

Support Cost ratio: 44% [All Support Costs () divided by the sum of the escalated Construction Capital (**) and the escalated R/W Capital]*

Project Schedule:

Milestones	Delivery Date (Month, Day, Year)
Begin Environmental	10/01/2012
Notice of Intent (NOI)	10/01/2012
Circulate DED	11/01/2013
PA & ED	02/03/2014
PS&E to DOE	09/01/2015
Project PS&E	12/15/2015
Right of Way Certification	04/01/2016
Ready to List	04/15/2016
Approve Contract	11/01/2016
Contract Acceptance	08/01/2018
End Project	08/03/2020

10. FEDERAL COORDINATION

This project is eligible for federal-aid funding and is considered to be STATE-AUTHORIZED under current FHWA-Caltrans Stewardship Agreements.

11. PROJECT PERSONNEL

Location	Contact	Function	Phone No.
District 6	Judy Aguilar	Project Manager	559-243-3457
District 6	Sam Katich	Bridge Coordinator	559-488-4247
District 6	Ali Alqatami	Design Manager	559-243-3475
District 6	Ranjit Mondal	Project Engineer	559-243-3596
District 6	Kirsten Helton	Environmental Manager	559-445-6282
District 6	Nick Dumas	Right of Way	559-445-6195
District 6	Houa Yang	Right of Way	559-445-6243
District 6	Albert Lee	Traffic Operations	559-488-4111
HQ Structure	Mike Downs	Structures Liaison Engineer	916-227-9365
HQ Structure	Fritz Hoffman	Senior Bridge Engineer	916-227-8483
HQ Structure	Gloria R Gutierrez	Structure Project Engineer	916-227-8080
Construction	Les Inagaki	Senior Bridge Engineer	661-391-4761

12. PROJECT REVIEWS

Project Reviewed by:

Field Review	Design and Construction Team	Date	10/05/11
District 6 Bridge Coordinator	Sam Katich	Date	08/10/11
District Safety	Safety Review Committee	Date	10/19/11
SHOPP Program Advisor	Roger Hunter	Date	
HQ Design Coordinator	Michael Downs	Date	09/21/11
HQ Design Reviewer	Mike Janzen	Date	10/24/11
Constructibility Review	Review Committee	Date	10/24/11

13. ATTACHMENTS

- A. Project Map
- B. Conceptual Report
- C. Advance Planning Study Transmittal
- D. Planning Cost Estimate
- E. Preliminary Environmental Analysis Report
- F. R/W Data Sheet
- G. TMP Data Sheet
- H. Storm Water Data Report (Signed Cover Page)
- I. Scoping Team Field Review Attendance Roster
- J. Constructability Review Attendance Roster
- K. Risk Management Plan

CC:

HQ Division of Design - (2 copies)
HQ program Advisor - Roger Hunter
HQ Division of Engineering Services - (5 copies)
HQ Transportation Programming - Rick Guevel
HQ Environmental - Bob Pavlik
Project Manager - Judy Aguilar
Design Manager - Ali Alqatami (2 copies)
Resident Engineer -

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RU: 1458, EA: 06-0K810K
Project ID: 0612000108
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District Maintenance – John Liu
District Traffic Management – Benjamin Camarena
Region Traffic Design – Mohammed Qatami
District Traffic Operations – Albert Lee
Region Materials – Ted Mooradian
Region Environmental – David Hyatt
Region Right of Way – Nick Dumas
District Planning – Steve Curti
PPM – Andrea Schmuki
Surveys – Hanna Kassis (electronic copy only)
HQ DES/OPPM – Peggy Lim
District Records – Beverly Connolly (electronic copy only)

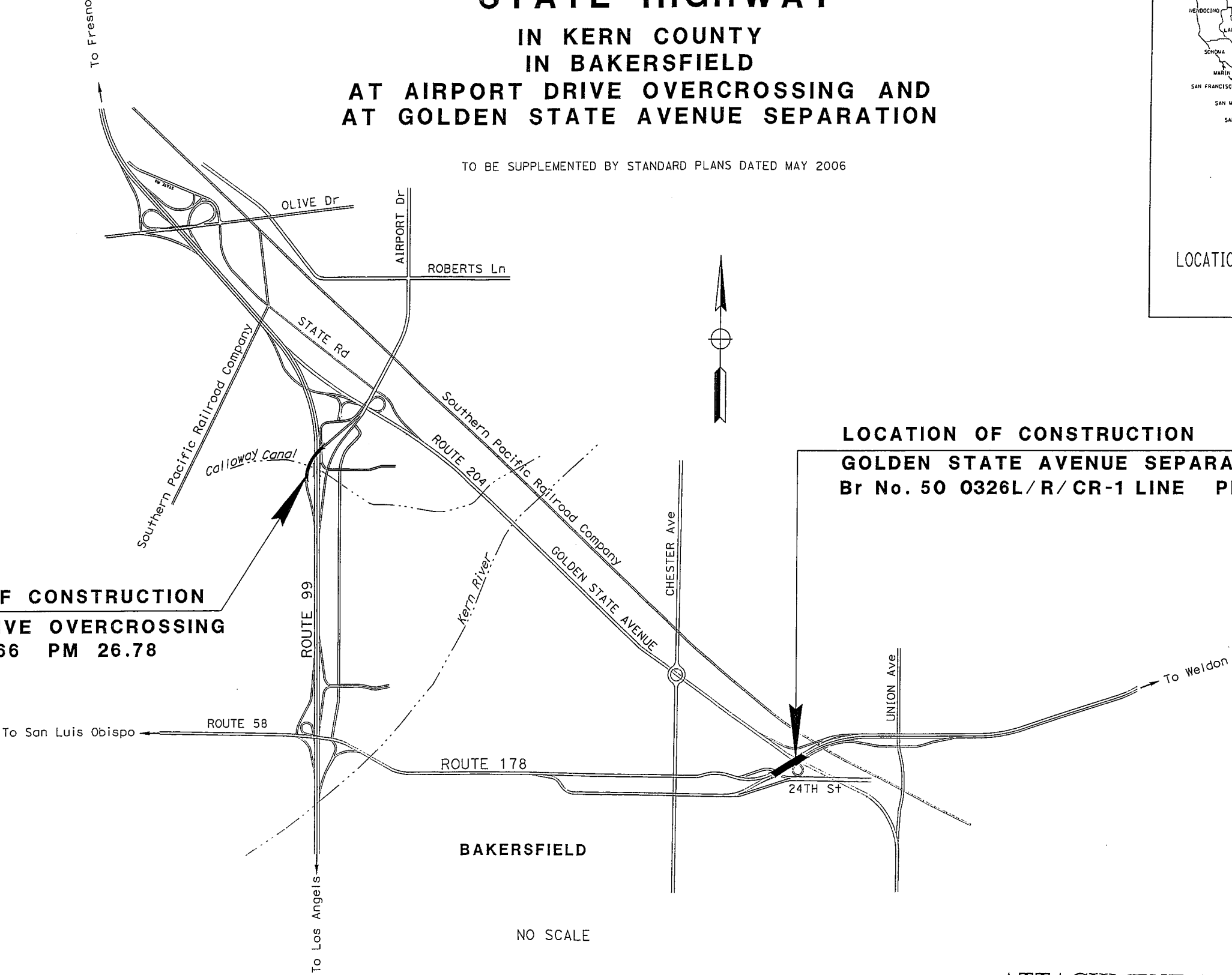
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN KERN COUNTY
IN BAKERSFIELD
AT AIRPORT DRIVE OVERCROSSING AND
AT GOLDEN STATE AVENUE SEPARATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



LOCATION OF CONSTRUCTION
AIRPORT DRIVE OVERCROSSING
Br No. 50 0266 PM 26.78

LOCATION OF CONSTRUCTION
GOLDEN STATE AVENUE SEPARATION
Br No. 50 0326L/R/CR-1 LINE PM 1.95



PROJECT MANAGER
JUDY AGUILAR

DESIGN ENGINEER
ALI R. ALQATANI

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

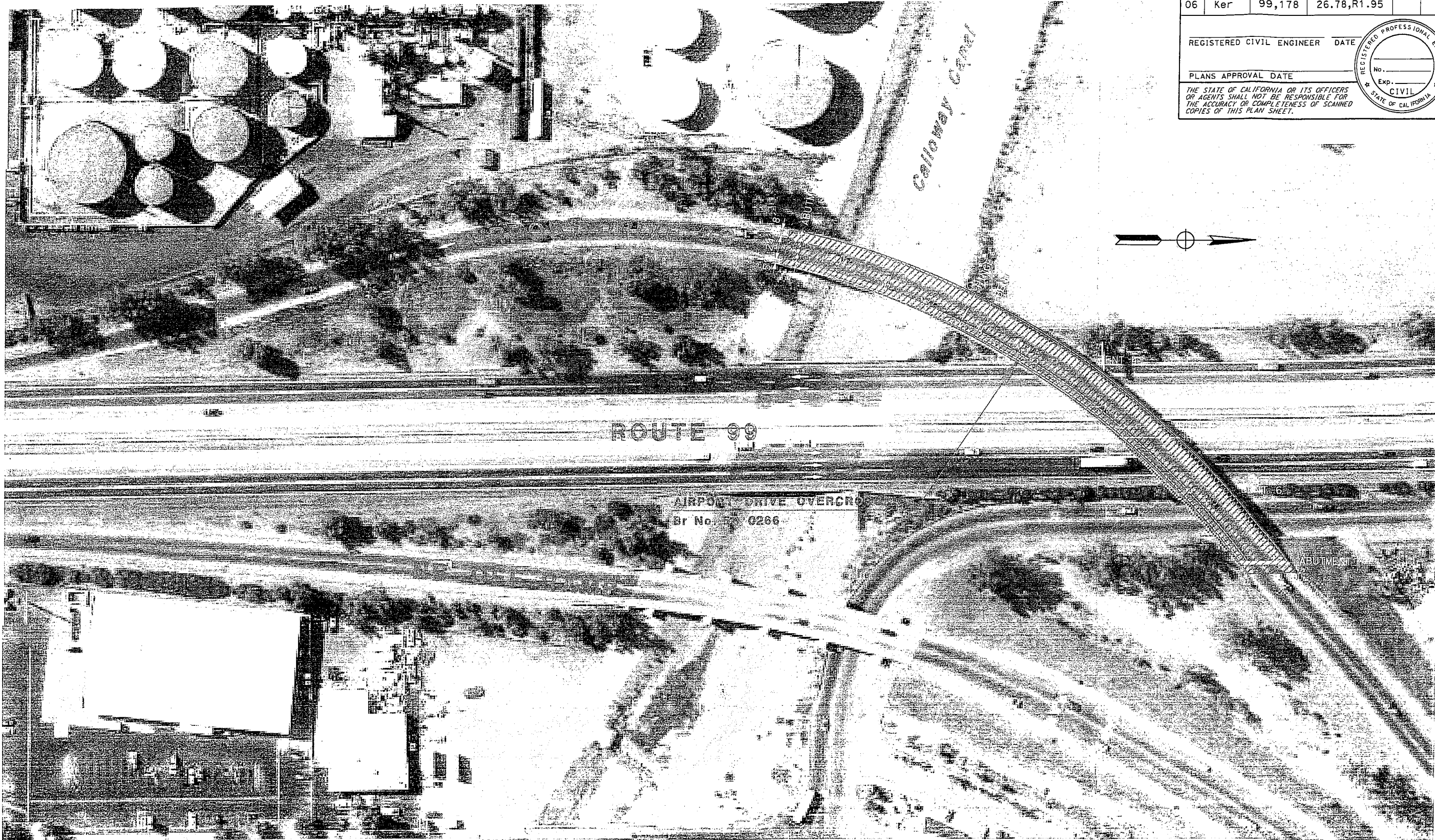
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CONTRACT No. 06-OK8104

PROJECT ID 0612000108

ATTACHMENT-A



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	99,178	26.78,R1.95		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

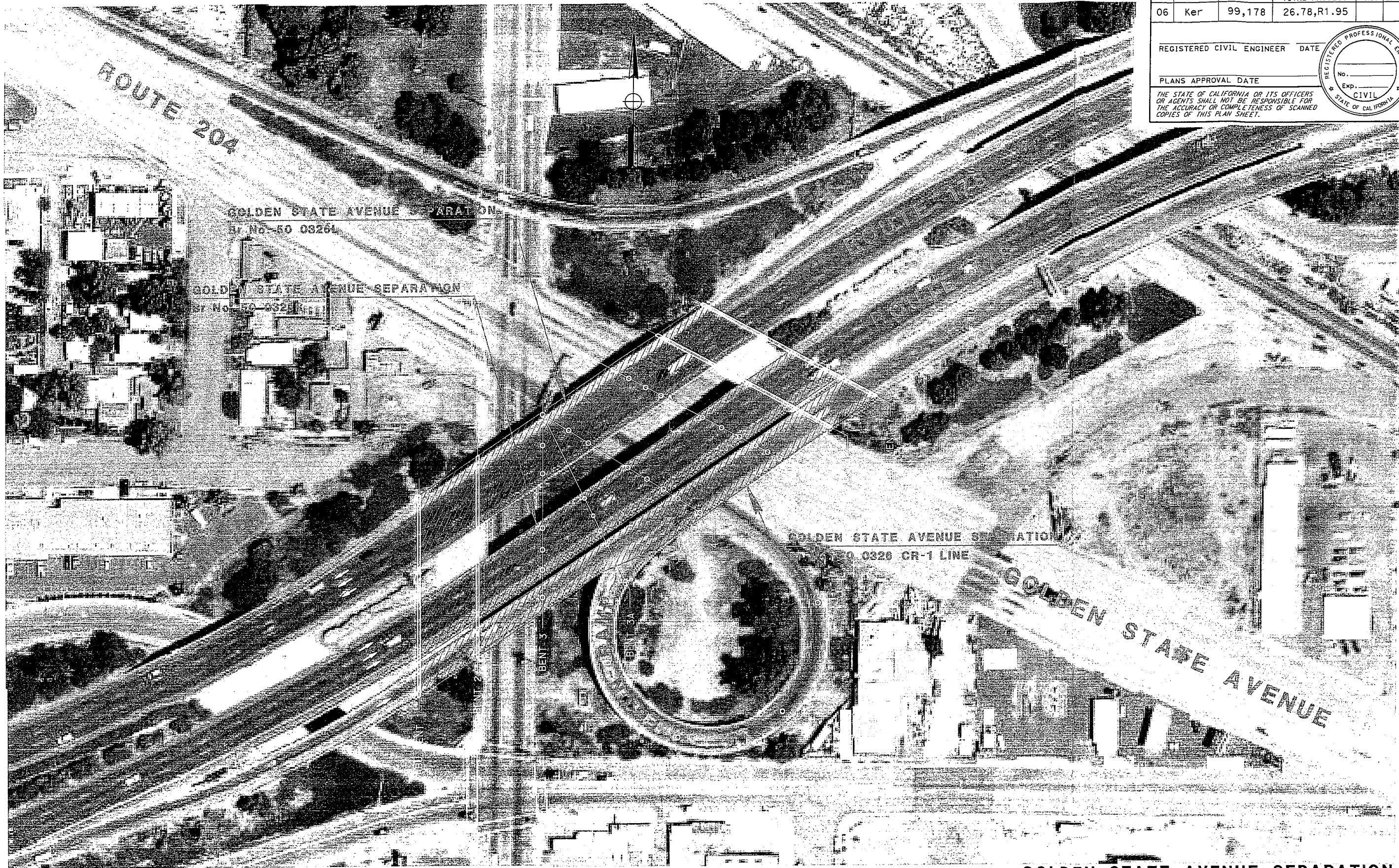
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REGISTERED PROFESSIONAL ENGINEER
No. Exp. CIVIL
STATE OF CALIFORNIA

KERN COUNTY SEISMIC RESTORATION

AIRPORT DRIVE OVERCROSSING
ROUTE 99 PM 26.78
PRELIMINARY LAYOUT
L-1

SCALE: Horiz 1"=50'
Vert 1"=50'



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	99,178	26.78,R1.95		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. Exp. CIVIL
STATE OF CALIFORNIA

KERN COUNTY SEISMIC RESTORATION

GOLDEN STATE AVENUE SEPARATION
ROUTE 178 PM R1.95
PRELIMINARY LAYOUT
L-2

SCALE: Horiz 1"=50'
Vert 1"=50'

EA 06-0K810k
Ker-99-26.78 Br. 50-0266
Ker-178-R1.95 Br. 50-0326R/L
Tul-99-21.43 Br. 46-0056L

CONCEPTUAL REPORT

Kern and Tulare Counties Seismic Restoration

INTRODUCTION

It is proposed to mitigate seismic deficiencies at the above identified 4 bridges. The estimated cost of the project is \$5,826,000 and is proposed to be funded from the District Major capital outlay Fund, Seismic Restoration Program (201.113), in the 2015/2016 Fiscal Year.

BACKGROUND AND DEFICIENCY

The above facilities were identified in the Structure Replacement and Improvement Needs Report (STRAIN) as needing seismic restoration work.

PROPOSAL DESCRIPTION

Identified structures have varying degrees of scope, the full extent of which will be explored and developed on an individual site basis.

ENVIRONMENTAL AND RIGHT OF WAY

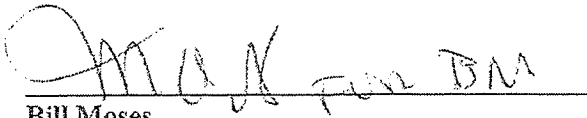
There are no additional right-of-way requirements or significant environmental impacts anticipated for this project.

PROJECT PERSONNEL

District 6 Maintenance Engineer
District 6 Bridge Coordinator

Bill Moses	559-445-6514
Sam Katich	559-488-4247

APPROVAL RECOMMENDED BY


Bill Moses
District 6 Maintenance

9/10/2011
DATE

Attachments:
Bridge Needs Reports

Scope of work:

50-0266 Airport Drive Overcrossing

- Existing C-1 restrainers will be removed and replaced with pipe seat extenders at both hinge locations.
- Full height steel column casings will be installed on all columns on the bridge to help facilitate the inadequate ductility inherent in the columns.
- Bent 2 columns have very high percentage of steel in the columns, 4.4%, creating a very stiff column which could cause bentcap/column interaction problems during seismic event. More analysis of this bent is needed but bent 2 has the possibility of needing a bent cap retrofit to strengthen the existing bent cap and insure that all plastic bending is forced into the columns.

Golden State Avenue Separation

- Existing C-1 restrainers will be removed and replaced with pipe seat extenders at hinge locations.
- Full height steel column casings will be installed on all columns on the bridge.
- Other deficiencies which have been noticed are short seats structurally weak bent caps at bent 5 and bent 6 for the bridges, Left, Right and CR-1 Line. It is recommended that bent 5 be widened by 1'-6" on each side and bent 6 be widened by 1'-6" on one side to strengthen and allow a greater margin of safety to prevent a girder from becoming unseated. A more in-depth analysis is required for bent 6.
- All three bridges will have Abutment 1 seat extenders.
- The footing of single column bent at bent 3 for right CR-1 to be enlarged in all dimensions and additional pile installed to upgrade the footing capacity. Along with the footing retrofit, full height steel column casing to be installed for bent 3.

California Department of Transportation
Office of Structure Maintenance and Investigation

BRIDGE NEEDS/PROJECT REPORT

Date : 08/09/2011

COMPLETED WORK NOT SHOWN

Page 1 of 2

Bridge No.: 50 0266

Location: 06-KER-099-26.78

Name: AIRPORT DRIVE OC

ABME Area: 06A - GARY CLAGGETT

Last Insp: 10/14/2009 Last Insp By: G.Claggett

Structure Type & Material

Str Matl: 2-CONCRETE CONT
Design Type: 05-BOX BEAM OR GDR - MULTIPLE
Deck Type: 1-CIP CONCRETE
Dk Surface: 6-BITUMINOUS
Dk Membrane: 0-NONE
Dk Protect: 0-NONE

Structure Details

Year Build (27): 1963
Feature Intersected (6): STATE ROUTE 99
Facility Carried (7): AIRPORT DRIVE
Type of Service on (42a): 1 HIGHWAY
Under (42b): 1 HIGHWAY
Structure Length (49): (m) 189.6
Permit Rating: P P P P P
Rail Rating: 0111

Structure Condition

Suff Rating: 88.70

Health Index: 100.00

Status: FUNCTIONALLY OBSOLETE

Paint Index:

Scour Code: N NOT OVER WATERWAY

Deck (58): 7 GOOD

Channel (61): N N/A (NEI)

Superstructure(59): 7 GOOD

Culvert (62): N N/A (NEI)

Substructure(60): 7 GOOD

Waterway (71): N NOT APPLICABLE

Element Condition

Unit	Elem	Env	Quantity	Units	St.1	St.2	St.3	St.4	St.5	Description
101	13	2	2290	sq.m.	2290	0	0	0	0	Concrete Deck - Unprotected w/ AC Overlay
101	105	2	622	m.	622	0	0	0	0	Reinforced Concrete Closed Webs/Box Girder
101	205	2	12	ea.	12	0	0	0	0	Reinforced Conc Column or Pile Extension
101	215	2	12	m.	12	0	0	0	0	Reinforced Conc Abutment
101	227	2	1	ea.	1	0	0	0	0	Reinforced Conc Submerged Pile
101	302	2	120	m.	120	0	0	0	0	Compression Joint Seal
101	311	2	10	ea.	10	0	0	0	0	Moveable Bearing (roller, sliding, etc.)
101	333	2	380	m.	380	0	0	0	0	Other Bridge Railing

Project Information

Dist/EA: 06 - 0K810

FY: 2016

Tot.Cost(\$):

\$4253

Status: 8 10-YEAR PLAN

Notes:

* This bridge contains multiple ratings. The controlling rating is shown for the bridge.

California Department of Transportation
Office of Structure Maintenance and Investigation

BRIDGE NEEDS/PROJECT REPORT

Date : 08/09/2011

COMPLETED WORK NOT SHOWN

Page 2 of 2

Bridge No.: 50 0256

Location: 06-KER-099-26.78

Name: AIRPORT DRIVE OC

ABME Area: 06A - GARY CLAGGETT

Last Insp: 10/14/2009 Last Insp By: G.Claggett

Outstanding Work

Rec. Date: 10/14/2009	EstCost: \$2,600	Repair aluminum rail, see bridge report
Action : Railing-Misc.	StrTarget : 2 years	
Work By : Bridge Crew	DistTarget:	
Status : Proposed	Comp Date :	
	EA :	
Rec. Date: 03/28/2007	EstCost: \$1,147,000	Short seat hinges, non-ductile columns. Priority 4. Final
Action : Seismic-Retrofit	StrTarget : 2 years	Score 12.6.
Work By : STRAIN	DistTarget:	
Status : Ten Year Plan	Comp Date :	
	EA : OK810	

Notes:

* This bridge contains multiple ratings. The controlling rating is shown for the bridge.

California Department of Transportation
Office of Structure Maintenance and Investigation

BRIDGE NEEDS/PROJECT REPORT

Date : 08/09/2011

COMPLETED WORK NOT SHOWN

Page 1 of 1

Bridge No.: 50 0326L

Location: 06-KER-178-R1.95-BKD

Name: GOLDEN STATE AVENUE SEPARATIO

ABME Area: 06A - GARY CLAGGETT

Last Insp: 12/09/2008 Last Insp By: G.Claggett

Structure Type & Material

Str Matl: 5-PRESTRESS CONC
Design Type: 02-STRINGER/MULTI-BEAM OR GDR
Deck Type: 1-CIP CONCRETE
Dk Surface: 6-BITUMINOUS
Dk Membrane: 0-NONE
Dk Protect: 0-NONE

Structure Details

Year Build (27): 1967
Feature Intersected (6): ST RTE 204 & Q STREET
Facility Carried (7): STATE ROUTE 178 WB
Type of Service on (42a): 1 HIGHWAY
Under (42b): 1 HIGHWAY
Structure Length (49): (m) 125
Permit Rating: PPPGG
Rail Rating: 0000

Structure Condition

Suff Rating: 92.10 Health Index: 100.00 Status:
Paint Index: Scour Code: N NOT OVER WATERWAY

Deck (58): 7 GOOD
Superstructure(59): 8 VERY GOOD
Substructure(60): 7 GOOD

Channel (61): N N/A (NBI)
Culvert (62): N N/A (NBI)
Waterway (71): N NOT APPLICABLE

Element Condition

Unit	Elem	Env	Quantity	Units	St.1	St.2	St.3	St.4	St.5	Description
101	13	2	2170	sq.m.	2170	0	0	0	0	Concrete Deck - Unprotected w/ AC Overlay
101	105	2	78	m.	78	0	0	0	0	Reinforced Concrete Closed Webs/Box Girder
101	109	2	376	m.	376	0	0	0	0	P/S Conc Open Girder/Beam
101	181	2	8	ea.	8	0	0	0	0	Type C-1 EQ Restraint Cable
101	205	2	9	ea.	9	0	0	0	0	Reinforced Conc Column or Pile Extension
101	210	2	46	m.	46	0	0	0	0	Reinforced Conc Pier Wall
101	215	2	46	m.	46	0	0	0	0	Reinforced Conc Abutment
101	234	2	23	m.	23	0	0	0	0	Reinforced Conc Cap
101	302	2	34	m.	34	0	0	0	0	Compression Joint Seal
101	312	2	2	ea.	2	0	0	0	0	Enclosed/Concealed Bearing
101	333	2	274	m.	274	0	0	0	0	Other Bridge Railing

Project Information

Dist/EA: 06 - 0K810

FY: 2016

Tot.Cost(\$):

\$4253

Status: 8 10-YEAR PLAN

Outstanding Work

Rec. Date: 03/28/2007	EstCost: \$1,151,000	Short seat hinges, non-ductile pile extensions. Priority
Action : Seismic-Retrofit	StrTarget : 2 years	4. Final Score 0.9.
Work By : STRAIN	DistTarget:	
Status : Ten Year Plan	Comp Date :	
EA :	0K810	

Notes:

* This bridge contains multiple ratings. The controlling rating is shown for the bridge.

California Department of Transportation
Office of Structure Maintenance and Investigation
BRIDGE NEEDS/PROJECT REPORT

Date : 08/09/2011

COMPLETED WORK NOT SHOWN

Page 1 of 1

Bridge No.: 50 0326R

Location: 06-KER-178-R1.95-BKD

Name: GOLDEN STATE AVENUE SEPARATIO

ABME Area: 06A - GARY CLAGGETT

Last Insp: 12/09/2008 Last Insp By: G.Claggett

Structure Type & Material

Str Matl: 2-CONCRETE CONT
Design Type: 05-BOX BEAM OR GDR - MULTIPLE
Deck Type: 1-CIP CONCRETE
Dk Surface: 6-BITUMINOUS
Dk Membrane: 0-NONE
Dk Protect: 0-NONE

Structure Details

Year Build (27): 1967
Feature Intersected (6): ST RTE 204 & Q STREET
Facility Carried (7): STATE ROUTE 178 EB
Type of Service on (42a): 1 HIGHWAY
Under (42b): 1 HIGHWAY
Structure Length (49): (m) 142.3
Permit Rating: PPP00
Rail Rating: 0000

Structure Condition

Suff Rating: 76.00 Health Index: 100.00 Status: FUNCTIONALLY OBSOLETE
Paint Index: Scour Code: N NOT OVER WATERWAY

Deck (58): 7 GOOD
Superstructure(59): 8 VERY GOOD
Substructure(60): 7 GOOD

Channel (61): N N/A (NBI)
Culvert (62): N N/A (NBI)
Waterway (71): N NOT APPLICABLE

Element Condition

Unit	Elem	Env	Quantity	Units	St.1	St.2	St.3	St.4	St.5	Description
101	13	2	2160	sq.m.	2160	0	0	0	0	Concrete Deck - Unprotected w/ AC Overlay
101	105	2	94	m.	94	0	0	0	0	Reinforced Concrete Closed Webs/Box Girder
101	109	2	339	m.	339	0	0	0	0	P/S Conc Open Girder/Beam
101	181	2	8	ea.	8	0	0	0	0	Type C-1 EQ Restraint Cable
101	205	2	12	ea.	12	0	0	0	0	Reinforced Conc Column or Pile Extension
101	210	2	39	m.	39	0	0	0	0	Reinforced Conc Pier Wall
101	215	2	39	m.	39	0	0	0	0	Reinforced Conc Abutment
101	234	2	20	m.	20	0	0	0	0	Reinforced Conc Cap
101	301	2	30	m.	30	0	0	0	0	Pourable Joint Seal
101	312	2	2	ea.	2	0	0	0	0	Enclosed/Concealed Bearing
101	333	2	309	m.	309	0	0	0	0	Other Bridge Railing

Project Information

Dist/EA: 06 - OK810

FY: 2016

Tot.Cost(\$):

\$4253

Status: 8 10-YEAR PLAN

Outstanding Work

Rec. Date: 03/28/2007	EstCost: \$1,121,500	Short seat hinges, non-ductile pile extensions. Priority
Action : Seismic-Retrofit	StrTarget : 2 years	4. Final Score 0.9.
Work By : STRAIN	DistTarget:	
Status : Ten Year Plan	Comp Date :	
	EA : OK810	

Notes:

* This bridge contains multiple ratings. The controlling rating is shown for the bridge.

Office of Structure Maintenance and Investigation

BRIDGE NEEDS/PROJECT REPORT

Date : 08/09/2011

COMPLETED WORK NOT SHOWN

Page 1 of 1

Bridge No.: 46 0056L

Location: 06-TUL-099-21.43

Name: SOUTH BRANCH TULE RIVER

ABME Area: 06B - ANDY DANG

Last Insp: 10/20/2010 Last Insp By: AN.Dang/RH.Le

Structure Type & Material

Str Matl: 1-CONCRETE
 Design Type: 19-CULVERT
 Deck Type: 1-CIP CONCRETE
 Dk Surface: 6-BITUMINOUS
 Dk Membrane: 0-NONE
 Dk Protect: 0-NONE

Structure Details

Year Build (27): 1931
 Feature Intersected (6): SOUTH BRANCH TULE RIVER
 Facility Carried (7): STATE ROUTE 99 SB
 Type of Service on (42a): 1 HIGHWAY
 Under (42b): 5 WATERWAY
 Structure Length (49): (m) 91.7
 Permit Rating: PPPPP
 Rail Rating: 1111

Structure Condition

Suff Rating: 90.50 Health Index: 100.00 Status:
 Paint Index: Scour Code: 8 STABLE ABOVE FOOTING

Deck (58): N N/A (NBI)
 Superstructure(59): N N/A (NBI)
 Substructure(60): N N/A (NBI)

Channel (61): 6 BANK SLUMPING
 Culvert (62): 8 NO MAJOR PROBLEM
 Waterway (71): 6 EQUAL MINIMUM

Element Condition

Unit	Elem	Env	Quantity	Units	St.1	St.2	St.3	St.4	St.5	Description
101	241	2	305	m.	305	0	0	0	0	Reinforced Concrete Culvert
101	333	2	96	m.	96	0	0	0	0	Other Bridge Railing
101	334	2	96	m.	96	0	0	0	0	Misc. Railing with 0.33 m sidewalk

Project Information

Dist/EA: 06 - 0K810 FY: 2016 Tot.Cost(\$): \$4253 Status: 8 10-YEAR PLAN

Outstanding Work

Rec. Date: 10/20/2010	EstCost: \$7,800	Patch the soffit spalls.
Action : Super-Patch spalls	StrTarget : 2 years	
Work By : Bridge Crew	DistTarget:	
Status : Proposed	Comp Date :	
EA :		
Rec. Date: 01/16/2007	EstCost: \$503,500	Slab bridge with in-span short seat hinges, non-ductile pile extensions. Priority 2 & 4. Final Score 7.675.
Action : Seismic-Retrofit	StrTarget : 2 years	
Work By : STRAIN	DistTarget:	
Status : Ten Year Plan	Comp Date :	
EA : 0K810		

Notes:

* This bridge contains multiple ratings. The controlling rating is shown for the bridge.

Memorandum

Flex your power!

Be energy efficient!

To: ALI ALQATAMI
BRANCH CHIEF, DESIGN I-Z
DISTRICT 06

Date: October 18, 2011

File: 06-Various Counties and
Routes
Dist-06 EA 0K810K
PI 0612000108 K
Seismic Restoration

From: FRITZ HOFFMAN *FH*
Bridge Design Branch 06
Office of Bridge Design Central
Structure Design
Division of Engineering Services

Subject: Advance Planning Study Transmittal

Attached is the Advance Planning Study for the above referenced project.

The forecast structure cost, including time related overhead, mobilization and contingencies, is as follows:

Structure Name	Br. No.	Estimated Cost
Airport Drive OC	50-0266	\$ 1,033,000
Golden State Ave UC	50-0326	\$ 2,911,000
Total Cost =		\$ 3,944,000

The following table summarizes the projected total structure cost based on a variable escalation rate. The escalated structure cost is provided for informational purposes only and does not replace annual cost updates as required by Department policy.

Years Beyond Midpoint	Escalated Cost
1	\$ 4,034,712
2	\$ 4,155,753
3	\$ 4,321,983
4	\$ 4,486,219
5	\$ 4,607,347

This Advance Planning Study and associated cost estimate is based on the following assumptions:

1. Airport Drive OC retrofit consists of full length column steel casings at each Bent. This would require diverting the water in the Calloway Canal if water is present.
2. Airport Drive OC hinges will have pipe seat extenders. The hinges can be accessed from the deck or soffit.
3. The presence of the Kit Fox has been noted within the proximity of the Airport Drive OC Bridge. The actual location of habitat can change within short periods of time therefore the Kit Fox locations will need monitoring until and during construction. This could influence access to work areas.
4. Golden State Ave. UC consists of a Right, Left and CR-1 Line Bridges. All three bridges will have Abutment 1 seat extenders. This could require lane closures.
5. Golden State Ave. UC columns will have full length steel casings extending to the top of footings. In the case of Bent 3 of the CR-1 Line the footing will also need to be retrofitted. The footing retrofit cannot encroach into the adjacent city street.
6. All current hinge restrainers will be replaced with pipe hinge seat extenders. The exact number of pipe hinge seat extenders needed is contingent on a more in-depth seismic analysis.

If you have any questions or if you need additional information regarding this study, please contact Gloria Reyes-Gutierrez at (916) 227-8080 or Fritz Hoffman at (916) 227-8483.

Attachments

c: PEGGY LIM , Project Liaison Engineer
JOHN STAYTON, Bridge Design Office Chief
MIKE DOWNS , Technical Liaison Engineer
H. JAVIER CHAVEZ, Branch Chief, Bridge Architecture & Aesthetics
PETE WHITFIELD, Office Chief, Structure Maintenance & Investigations
KEVIN WALL, Program Advisor, Structure Maintenance & Investigations
JOHN BABCOCK, Structure Construction Assistant Deputy Division Chief
ROY BIBBENS, Geotechnical Services
QIANG HUANG, Geotechnical Services
STEVE NG, Structure Hydraulics & Hydrology

X PID ESTIMATE

Revised - August 30, 2011

RCVD BY: RWP

IN EST: 9/26/2011

OUT EST: 10/7/2011

BRIDGE: Airport Drive OC

BR. No.: 50-0266

DISTRICT: 06

TYPE:

RTE: 99.00

CU: 06

CO: Ksm

EA: OK810K

PM: 26.80

LENGTH: 622.00 WIDTH: 39.67 AREA (SF)= 24,675

DESIGN SECTION: 06

OF STRUCTURES IN PROJECT: 04

EST. NO. 1

PRICES BY: TNC

COST INDEX: 297

PRICES CHECKED BY:

DATE:

QUANTITIES BY: DGA

DATE: 9/19/2011

	CONTRACT ITEMS	TYPE	UNIT	QUANTITY	PRICE	AMOUNT
1	TEMPORARY RAILING		LF			
2	STRUCTURE EXCAVATION (BRIDGE)		CY			
3	STRUCTURE EXCAVATION		CY			
4	STRUCTURE BACKFILL (BRIDGE)		CY			
5	PERVIOUS BACKFILL MATERIAL		CY			
6	24" CIDH CONCRETE PILING		LF			
7	FURNISH PILING		LF			
8	DRIVE PILE		EA			
9	FURN PC/PS CONCRETE GIRDERS		EA			
10	ERECT PC/PS CONCRETE GIRDERS		EA			
11	STRUCTURAL CONCRETE, BRIDGE		CY	24	\$3,000.00	\$72,000.00
12	STRUCTURAL CONCRETE, BRIDGE FOOTING		CY			
13	STRUCT CONC, APP SLAB (TYPE N)		CY			
14	PRESTRESSING STEEL		LB			
15	BAR REINFORCING STEEL (BRIDGE)		LB	3600	\$2.50	\$9,000.00
16	FURNISH STRUCTURAL STEEL		LB			
17	ERECT STRUCTURAL STEEL (INCL PAINT)		LF			
18	JOINT SEAL ASSEMBLY (MR = 4)		LF			
19	JOINT SEAL (MR =) 2" max		LF			
20	SLOPE PAVING		CY			
21	MISCELLANEOUS METAL (RESTRAINER - PIPE TYPE)		LB	3186	\$6.00	\$19,116.00
22	MISC METAL (RESTRAINER - TIE ROD)		LB			
23	CONCRETE BARRIER		LF			
24	10" CORE CONCRETE		LF	40	\$600.00	\$24,000.00
25	DRILL AND BOND		LF	72	\$40.00	\$2,880.00
26	COLUMN CASING		LB	74073	\$6.00	\$444,438.00
27	DIAPHRAGM BOLSTER		EA	16	\$2,000.00	\$32,000.00
28	7" CORE CONCRETE		LF			
29						
30						

SUBTOTAL \$603,434

TIME RELATED OVERHEAD \$60,343

MOBILIZATION (@ 10 %) \$73,753

SUBTOTAL BRIDGE ITEMS \$737,530

CONTINGENCIES @ 40% \$295,012

BRIDGE TOTAL COST \$1,032,543

COST PER SQ. FOOT \$41.85

BRIDGE REMOVAL (CONTINGENCIES INCL.)

WORK BY RAILROAD OR UTILITY FORCES

GRAND TOTAL \$1,032,543

BUDGET ESTIMATE AS OF 10/7/11 \$1,033,000

ROUTING

- DES SECTION
- OFFICE OF BRIDGE DESIGN - NORTH
- OFFICE OF BRIDGE DESIGN - CENTRAL
- OFFICE OF BRIDGE DESIGN - SOUTH
- OFFICE OF BRIDGE DESIGN - WEST
- OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

COMMENTS:

X PID ESTIMATE

Revised - August 30, 2011

RCVD BY: RWP

IN EST: 9/26/2011

OUT EST:

BRIDGE: Golden State Ave UC

BR. No.: 50-0326

DISTRICT: 06

TYPE: Varies

RTE: 68,99,178,203

CU: 06

CO: Kern

EA: 0K810K

PM: Var

LENGTH:

WIDTH:

AREA (SF)=

DESIGN SECTION:

06

OF STRUCTURES IN PROJECT :

04

EST. NO. 1

PRICES BY :

TNC

COST INDEX: 297

PRICES CHECKED BY :

DATE:

QUANTITIES BY:

DGA

DATE: 9/19/2011

	CONTRACT ITEMS	TYPE	UNIT	QUANTITY	PRICE	AMOUNT
1	TEMPORARY RAILING		LF			
2	STRUCTURE EXCAVATION (BRIDGE)		CY	116	\$130.00	\$15,080.00
3	STRUCTURE EXCAVATION		CY			
4	STRUCTURE BACKFILL (BRIDGE)		CY	30	\$140.00	\$4,200.00
5	PERVIOUS BACKFILL MATERIAL		CY			
6	24" CIDH CONCRETE PILING		LF	600	\$190.00	\$114,000.00
7	FURNISH PILING		LF			
8	DRIVE PILE		EA			
9	FURN PC/PS CONCRETE GIRDERS		EA			
10	ERECT PC/PS CONCRETE GIRDERS		EA			
11	STRUCTURAL CONCRETE, BRIDGE		CY	263	\$3,000.00	\$789,000.00
12	STRUCTURAL CONCRETE, BRIDGE FOOTING		CY	79		
13	STRUCT CONC, APP SLAB (TYPE N)		CY			
14	PRESTRESSING STEEL		LB			
15	BAR REINFORCING STEEL (BRIDGE)		LB	55250	\$2.20	\$121,550.00
16	FURNISH STRUCTURAL STEEL		LB			
17	ERECT STRUCTURAL STEEL (INCL PAINT)		LF			
18	JOINT SEAL ASSEMBLY (MR = 4)		LF			
19	JOINT SEAL (MR =) 2" max		LF			
20	SLOPE PAVING		CY			
21	MISCELLANEOUS METAL (RESTRAINER - PIPE TYPE)		LB	11685	\$6.00	\$70,110.00
22	MISC METAL (RESTRAINER - TIE ROD)		LB			
23	CONCRETE BARRIER		LF			
24	10" CORE CONCRETE		LF	110	\$600.00	\$66,000.00
25	DRILL AND BOND		LF	593	\$40.00	\$23,720.00
26	COLUMN CASING		LB	111104	\$4.00	\$444,416.00
27	DIAPHRAGM BOLSTER		EA	22	\$2,000.00	\$44,000.00
28	7" CORE CONCRETE		LF	76	\$120.00	\$9,120.00
29						
30						

SUBTOTAL \$1,701,196

TIME RELATED OVERHEAD \$170,120

MOBILIZATION (@ 10 %) \$207,924

SUBTOTAL BRIDGE ITEMS \$2,079,240

CONTINGENCIES @ 40% \$831,696

BRIDGE TOTAL COST \$2,910,935

COST PER SQ. FOOT

BRIDGE REMOVAL (CONTINGENCIES INCL.)

WORK BY RAILROAD OR UTILITY FORCES

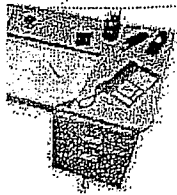
GRAND TOTAL \$2,910,935

BUDGET ESTIMATE AS OF \$2,911,000

ROUTING

- DES SECTION
- OFFICE OF BRIDGE DESIGN - NORTH
- OFFICE OF BRIDGE DESIGN - CENTRAL
- OFFICE OF BRIDGE DESIGN - SOUTH
- OFFICE OF BRIDGE DESIGN - WEST
- OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

COMMENTS:



Fritz
Hoffman/HQ/Caltrans/CAGov
09/06/2011 04:10 PM

To M Gloria Reyes-Gutierrez/HQ/Caltrans/CAGov@DOT
cc Rachel Washington/HQ/Caltrans/CAGov@DOT, David
Alvarez/HQ/Caltrans/CAGov@DOT
bcc
Subject Fw: EA No. 06-0K810K; Airport Drive OC Br. No. 50-0266

FRITZ HOFFMAN
Senior Bridge Engineer
Office of Bridge Design Central
Division of Engineering Services
(916) 227-8483

----- Forwarded by Fritz Hoffman/HQ/Caltrans/CAGov on 09/06/2011 04:10 PM -----

Reza
Mahallati/HQ/Caltrans/CAGov

09/06/2011 02:07 PM

To Fritz Hoffman/HQ/Caltrans/CAGov@DOT
cc Michael Downs/HQ/Caltrans/CAGov@DOT, Qiang
Huang/HQ/Caltrans/CAGov@DOT
Subject EA No. 06-0K810K; Airport Drive OC Br. No. 50-0266

Foundation Consideration

Airport Drive OC (50-0266): Ker-99-PM 26.7

- Current foundation type: 6 spans, driven concrete piles.
- Soil condition: Up to 20 ft of slightly compact sand with gravels, then dense to very dense sand/gravel mixture with cobbles.
- Feasible foundation types to resist lateral loads: CISS/open- end pipe piles with central relief as needed, Concrete driven/closed end pipe piles may hit refusal and may not have enough pile length for lateral below potential liquefaction layers. CIDH is difficult to construct.
- Resource agencies may have restrictions regarding pile driving on levees/embankments/their properties, foundation types may be impacted by this and discussions would be needed between Caltrans and applicable resource agencies during the design phase of the project.

Seismicity

Based on the Caltrans 2009 Seismic Design Procedure, the nearest active fault to the site is the White Wolf fault (Fault ID No.103) with Mmax of 7.3. The fault is located southeast of the bridge site, and the rupture distance to the fault plane from the bridge site is estimated to be 19.0 miles.

Based on the limited As-Built Log of Test Borings (LOTB) dated December 1958, a Vs30 (average shear wave velocity for the top approximate 100 feet of soil) was extrapolated using the SPT blow counts and the correlation formulas to be 1130 feet /second.

Using the above shear wave velocity, the design ground motion is controlled by the probabilistic method; and the procedure is based on the USGS 5% probability of exceedance in 50 years with a return period of 975 years. Please note the probabilistic spectral acceleration were obtained from the USGS web site at <https://geohazards.usgs.gov/deaggint/2008/>. The preliminary design Acceleration Response Spectrum curve is attached, and the peak ground acceleration is estimated to be 0.35g.

The potential for soil-liquefaction is considered low to moderate.

The potential for surface rupture at the site due to fault movement is considered insignificant since there are no known faults projecting towards or passing directly through the project site.

We propose to perform a site specific foundation investigation to better characterize the foundation materials. Once the future foundation exploration is completed, we will re-evaluate the seismic recommendations.



Br50-0266 Airport OC NGA pre ARS.pdf

Reza Mahallati
Senior Material and Research Engineer
Office of Geotechnical Design--North--
Office (916) 227-1033
Fax (916) 227-1082

**

For individuals with sensory disabilities, this document will be made available, upon request, in Braille, large print, audiocassette, or computer disk. To obtain a copy of one of these alternate formats, please call the Reasonable Accommodation Coordinator, Daniel Tumiaty at (916) 227-5166 or TTY 771 or write Attention: Daniel Tumiaty, Reasonable Accommodation Coordinator.

**

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**

Airport Drive OC

Bridge No. 50-0266

EA No. 06-0K810K

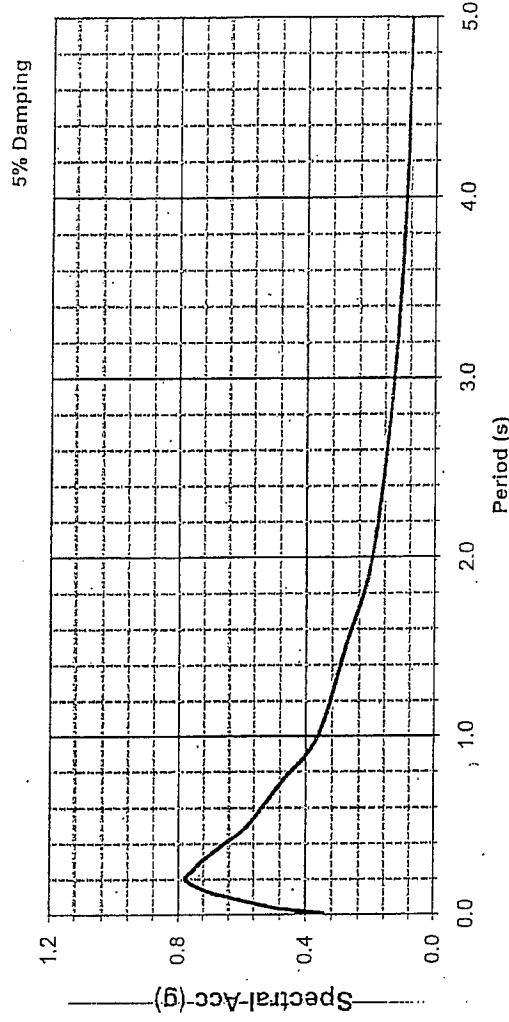
Latitude 35.3993

Longitude -119.0449

Control Probabilistic

Period (s)	Sa(g)
0.010	0.346
0.020	0.405
0.030	0.464
0.050	0.523
0.075	0.582
0.100	0.642
0.120	0.687
0.150	0.732
0.200	0.777
0.250	0.751
0.300	0.725
0.400	0.652
0.500	0.579
0.750	0.471
1.000	0.364
1.500	0.280
2.000	0.199
3.000	0.131
4.000	0.094
5.000	0.078

Acceleration Response Spectrum



Deterministic Procedure Data

Fault	White Wolf Fault	
Fault ID	103	
Style	LLSS	
Mmax	7.3	
Dip	75	deg
Z _{TOR}	0	km

R _{rup}	30.6	km
R _{jb}	30.6	km
R _x	30.6	km
V ₅₃₀	345	m/s
Z _{1.0}	N/A	m
Z _{2.5}	N/A	km

Notes

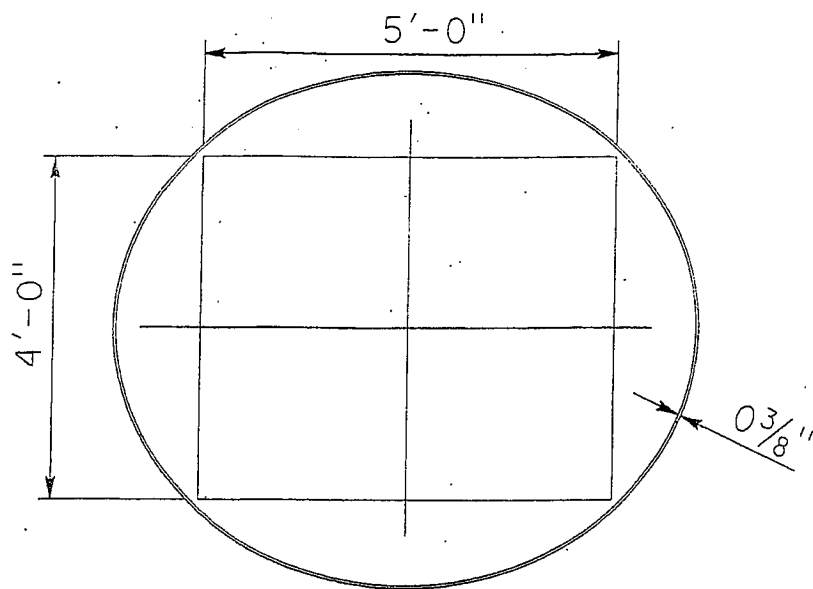
Please note the Design ARS curve is based on the USGS 5% probability of exceedance in 50 years (975 year return period).

Preliminary

Design Response Spectrum

8/25/2011, 8:38 AM

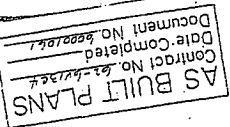
B:\50-0266 Airport OC\NGA.ppt ARS.xls Design ARS



Area = 0.6412 sq ft

Column Casing

309





Fritz
Hoffman/HQ/Caltrans/CAGov
09/06/2011 04:10 PM

To M Gloria Reyes-Gutierrez/HQ/Caltrans/CAGov@DOT
cc David Alvarez/HQ/Caltrans/CAGov@DOT, Rachel
Washington/HQ/Caltrans/CAGov@DOT
bcc
Subject Fw: EA No. 06-0K810K; Golden State Ave Sep. Br. No.
50-0326 R/L

FRITZ HOFFMAN
Senior Bridge Engineer
Office of Bridge Design Central
Division of Engineering Services
(916) 227-8483

----- Forwarded by Fritz Hoffman/HQ/Caltrans/CAGov on 09/06/2011 04:09 PM -----

Reza
Mahallati/HQ/Caltrans/CAGov

09/06/2011 02:05 PM

To: Fritz Hoffman/HQ/Caltrans/CAGov@DOT
cc Michael Downs/HQ/Caltrans/CAGov@DOT, Qiang
Huang/HQ/Caltrans/CAGov@DOT
Subject: EA No. 06-0K810K; Golden State Ave Sep. Br. No. 50-0326
R/L

Foundation Consideration

Golden State Ave Separation (50-0326R/L): Ker-178-PM R1.95

- Current foundation type: 5 spans, small diameter CIDHs.
- Soil condition: loose to compact sand/clayey sand with gravels for upper 25 ft, then dense/v dense sandy gravel with cobbles.
- Feasible foundation types to resist lateral loads: CISS/open- end pipe piles with central relief as needed, CIDH.
- Resource agencies may have restrictions regarding pile driving on levees/embankments/their properties, foundation types may be impacted by this and discussions would be needed between Caltrans and applicable resource agencies during the design phase of the project.

Seismicity

Based on the Caltrans 2009 Seismic Design Procedure, the nearest active fault to the site is the White Wolf fault (Fault ID No.103) with Mmax of 7.3. The fault is located southeast of the bridge site, and the rupture distance to the fault plane from the bridge-site is estimated to be 17.1 miles.

The As-Built Log of Test Borings (LOTB) is not readable and therefore, a Vs30 (average shear wave velocity for the top approximate 100 feet of soil) of 890 feet per second was judged to be applicable at this site

Using the above shear wave velocity, the design ground motion is controlled by the probabilistic method; and the procedure is based on the USGS 5% probability of exceedance in 50 years with a return period of 975 years. Please note the probabilistic spectral acceleration were obtained from the USGS web site at <https://geohazards.usgs.gov/deaggint/2008/>. The preliminary design Acceleration Response Spectrum curve is attached, and the peak ground acceleration is estimated to be 0.37g.

Due to condition of the LOTB, we are unable to determine the potential for liquefaction.

The potential for surface rupture at the site due to fault movement is considered insignificant since there are no known faults projecting towards or passing directly through the project site.

We propose to perform a site specific foundation investigation to better characterize the foundation materials. Once the future foundation exploration is completed, we will re-evaluate the seismic recommendations.



Br50-0326RLGolden State Ave Sep NGA ARS.pdf

Reza Mahallati
Senior Material and Research Engineer
Office of Geotechnical Design - North
Office-(916)-227-1033
Fax (916) 227-1082

**

For individuals with sensory disabilities, this document will be made available, upon request, in Braille, large print, audiocassette, or computer disk. To obtain a copy of one of these alternate formats, please call the Reasonable Accommodation Coordinator, Daniel Tumati at (916) 227-5166 or TTY 771 or write Attention: Daniel Tumati, Reasonable Accommodation Coordinator.

**

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**

Golden State Ave Sep

Bridge No. 50-0326 R/L

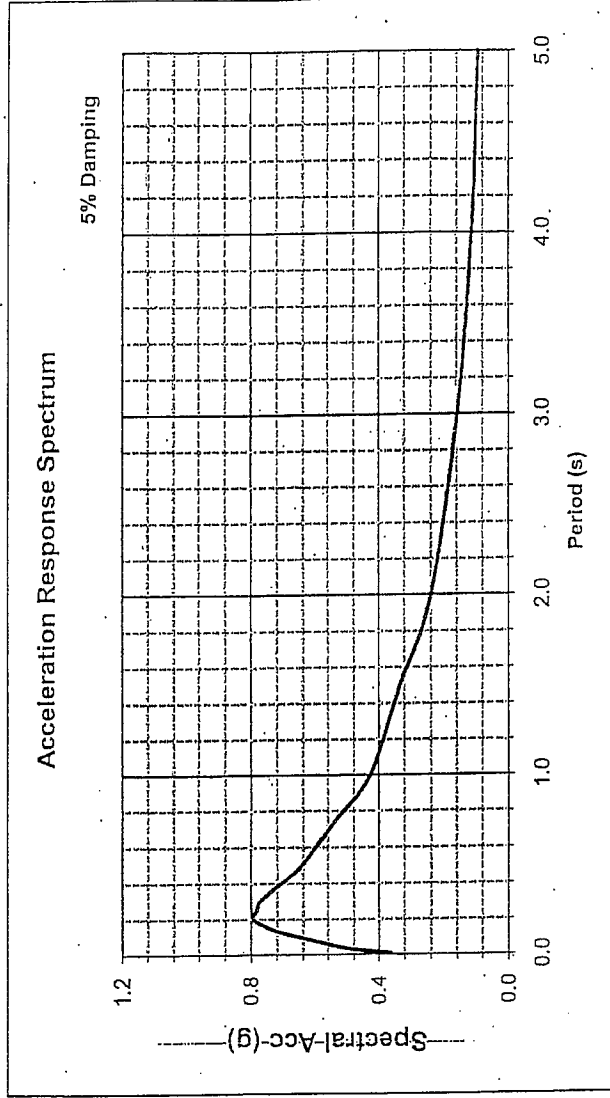
EA No. 06-0K810K

Latitude 35.3817

Longitude -119.0110

Control Probabilistic

Period (s)	Sa(g)
0.010	0.365
0.020	0.422
0.030	0.479
0.050	0.536
0.075	0.593
0.100	0.651
0.120	0.698
0.150	0.745
0.200	0.792
0.250	0.782
0.300	0.771
0.400	0.707
0.500	0.642
0.750	0.535
1.000	0.428
1.500	0.333
2.000	0.239
3.000	0.159
4.000	0.114
5.000	0.095



Deterministic Procedure Data

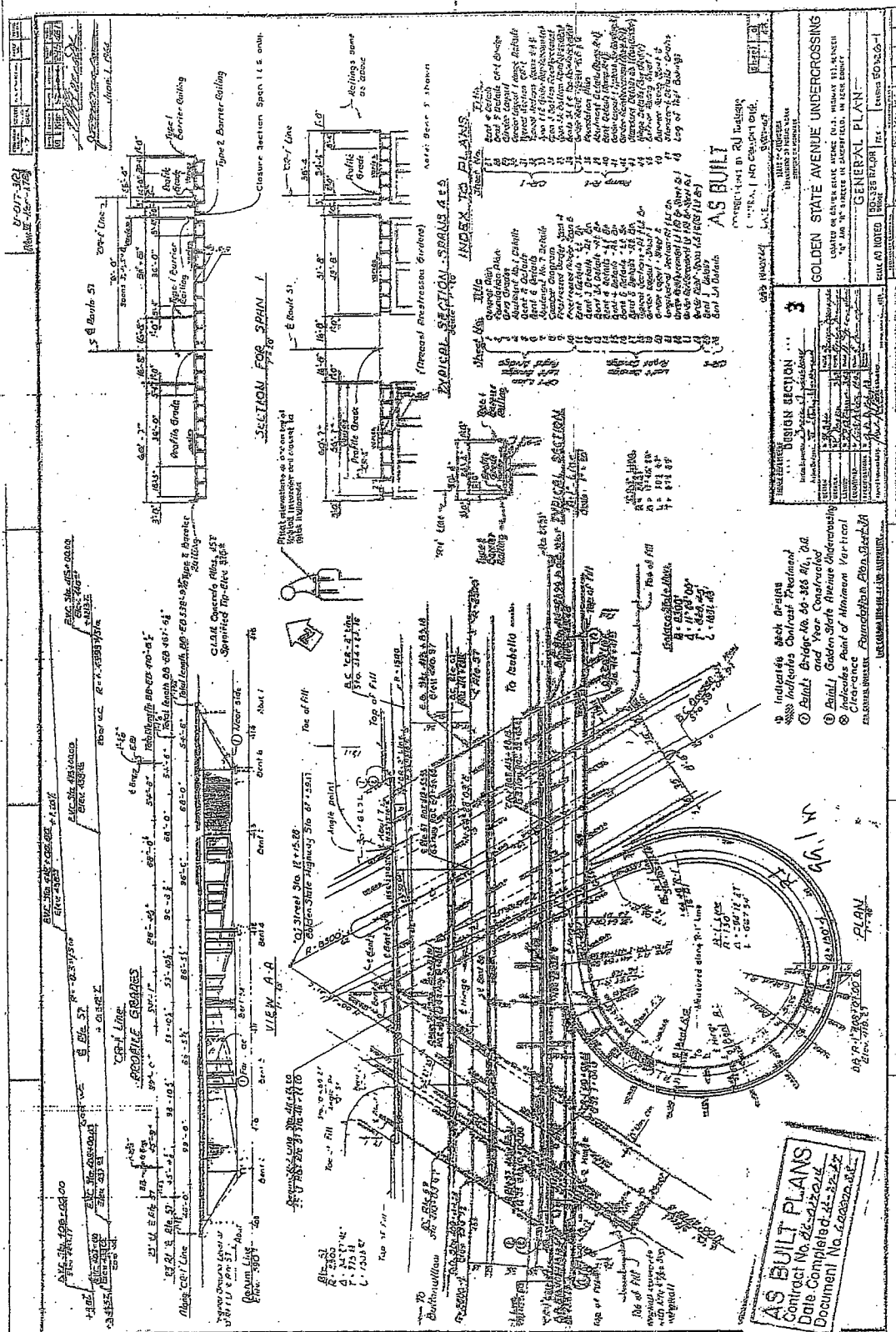
Fault	White Wolf Fault
Fault ID	103
Style	LLSS
Mmax	7.3
Dip	75 deg
Z _{TOR}	0 km

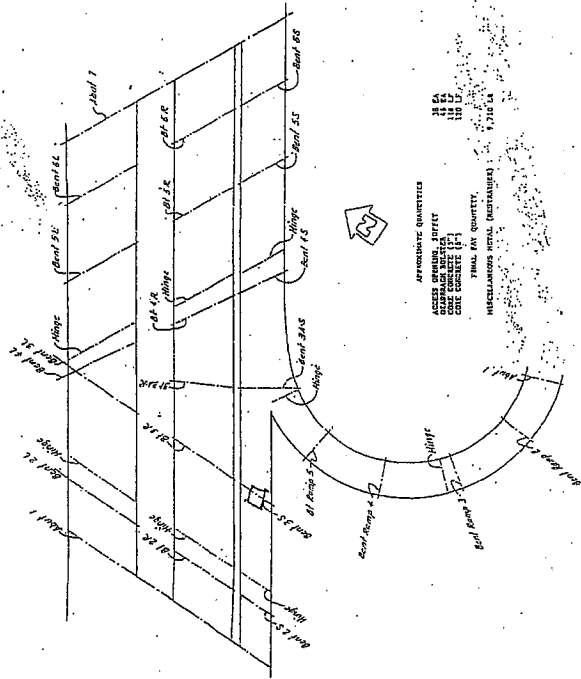
R _{rup}	27.6 km
R _{jb}	27.6 km
R _x	27.6 km
V _{s30}	270 m/s
Z _{1.0}	N/A m
Z _{2.5}	N/A km

Notes

Please note the Design ARS curve is based on the USGS 5% probability of exceedance in 50 years (975 year return period).

Preliminary
Design Response Spectrum



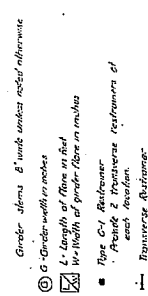
[illegible]

AS BUILT PLANS
Contract No. 05-29804
Date Completed _____
Document No. _____

RESEARCH

[illegible][illegible]

AS BUILT PLANS
Contract No. 06-269804
Date Completed _____
Document No. _____



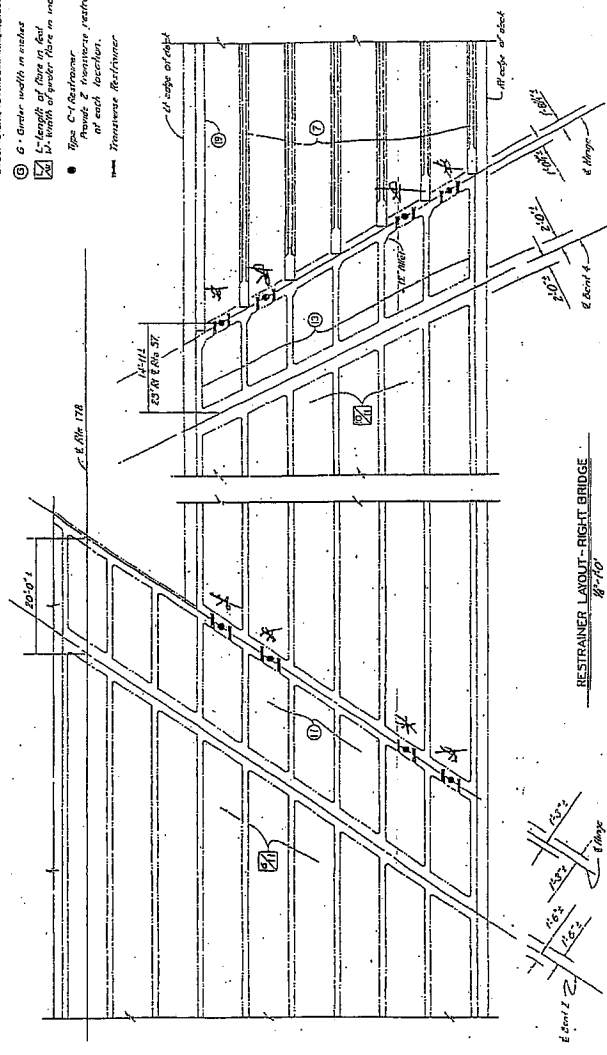
AS BUILT
CONTRACT NO. 06-11704
DATE 12-15-83 1-18-84 JTC
AND CONDITIONS THAT APPLY

[illegible]

AS BUILT PLANS
 Contract No. 22-22-202
 Date Completed
 Document No.

DATE: 12/13/74
 BY: J.P. GILLES
 CHECKED: J.P. GILLES
 APPROVED: J.P. GILLES
 PROJECT: EARTHQUAKE UPGRADE PROJECT '69'

- Gravel - Stone 6" max. unless noted otherwise
- ① 6" Gravel - unless noted otherwise
 - ② 1/2" Gravel - unless noted otherwise
 - ③ 1/4" Gravel - unless noted otherwise
 - ④ 1/8" Gravel - unless noted otherwise
 - ⑤ 1/16" Gravel - unless noted otherwise
 - ⑥ 1/32" Gravel - unless noted otherwise
 - ⑦ 1/64" Gravel - unless noted otherwise
 - ⑧ 1/128" Gravel - unless noted otherwise
 - ⑨ 1/256" Gravel - unless noted otherwise
 - ⑩ 1/512" Gravel - unless noted otherwise
 - ⑪ 1/1024" Gravel - unless noted otherwise
 - ⑫ 1/2048" Gravel - unless noted otherwise
 - ⑬ 1/4096" Gravel - unless noted otherwise
 - ⑭ 1/8192" Gravel - unless noted otherwise
 - ⑮ 1/16384" Gravel - unless noted otherwise
 - ⑯ 1/32768" Gravel - unless noted otherwise
 - ⑰ 1/65536" Gravel - unless noted otherwise
 - ⑱ 1/131072" Gravel - unless noted otherwise
 - ⑲ 1/262144" Gravel - unless noted otherwise
 - ⑳ 1/524288" Gravel - unless noted otherwise
 - ㉑ 1/1048576" Gravel - unless noted otherwise
 - ㉒ 1/2097152" Gravel - unless noted otherwise
 - ㉓ 1/4194304" Gravel - unless noted otherwise
 - ㉔ 1/8388608" Gravel - unless noted otherwise
 - ㉕ 1/16777216" Gravel - unless noted otherwise
 - ㉖ 1/33554432" Gravel - unless noted otherwise
 - ㉗ 1/67108864" Gravel - unless noted otherwise
 - ㉘ 1/134217728" Gravel - unless noted otherwise
 - ㉙ 1/268435456" Gravel - unless noted otherwise
 - ㉚ 1/536870912" Gravel - unless noted otherwise
 - ㉛ 1/1073741824" Gravel - unless noted otherwise
 - ㉜ 1/2147483648" Gravel - unless noted otherwise
 - ㉝ 1/4294967296" Gravel - unless noted otherwise
 - ㉞ 1/8589934592" Gravel - unless noted otherwise
 - ㉟ 1/17179869184" Gravel - unless noted otherwise
 - ㊱ 1/34359738368" Gravel - unless noted otherwise
 - ㊲ 1/68719476736" Gravel - unless noted otherwise
 - ㊳ 1/137438953472" Gravel - unless noted otherwise
 - ㊴ 1/274877906944" Gravel - unless noted otherwise
 - ㊵ 1/549755813888" Gravel - unless noted otherwise
 - ㊶ 1/1099511627776" Gravel - unless noted otherwise
 - ㊷ 1/2199023255552" Gravel - unless noted otherwise
 - ㊸ 1/4398046511104" Gravel - unless noted otherwise
 - ㊹ 1/8796093022208" Gravel - unless noted otherwise
 - ㊺ 1/17592186044416" Gravel - unless noted otherwise
 - ㊻ 1/35184372088832" Gravel - unless noted otherwise
 - ㊼ 1/70368744177664" Gravel - unless noted otherwise
 - ㊽ 1/140737488355328" Gravel - unless noted otherwise
 - ㊾ 1/281474976710656" Gravel - unless noted otherwise
 - ㊿ 1/562949953421312" Gravel - unless noted otherwise



AS BUILT
 CORRECTIONS BY J.P. GILLES
 CONTRACT NO. 22-22-202
 DATE 12-13-74
 NO CHANGES TO THIS

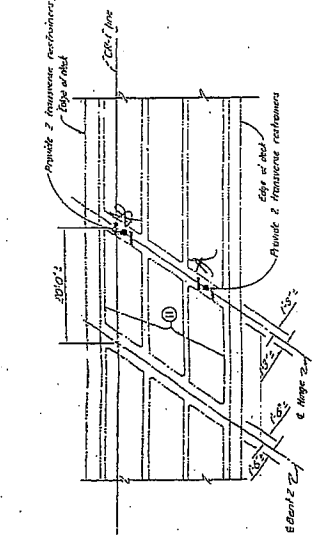
State of CALIFORNIA		EARTHQUAKE UPGRADE PROJECT '69'	
DEPARTMENT OF TRANSPORTATION		RESTRAINER LAYOUT GOLDEN ST. AVE. SER. R	
PROJECT NO. 22-22-202		SHEET NO. 11	
DATE 12-13-74		BY J.P. GILLES	
CHECKED J.P. GILLES		APPROVED J.P. GILLES	
PROJECT NO. 22-22-202		SHEET NO. 11	
DATE 12-13-74		BY J.P. GILLES	
CHECKED J.P. GILLES		APPROVED J.P. GILLES	

PROJECT NO. 62-200
 SHEET NO. 13
 DATE: February 11, 1962

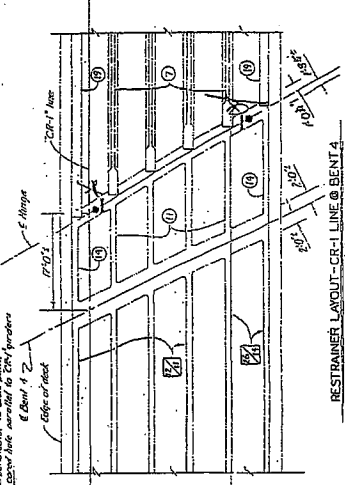
AS BUILT PLANS
 Contract No. 62-200
 Date Completed: 11/22/62
 Document No.

- Order: Slabs 8" thick unless noted otherwise
- ① 6" Grade width in inches
- ② Length of slab in feet
- ③ 1/2" width of quarter-round in inches
- ④ Type C-1 Restrainer
- ⑤ Transverse Reinforcement

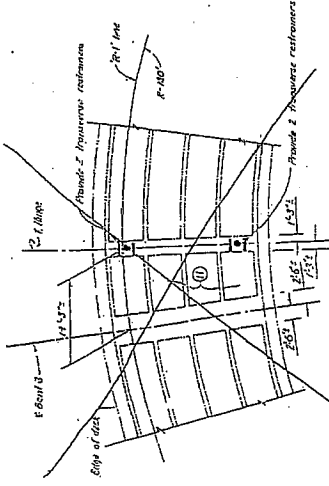
AS BUILT
 CONTRACT NO. 62-200
 DATE: 11/22/62



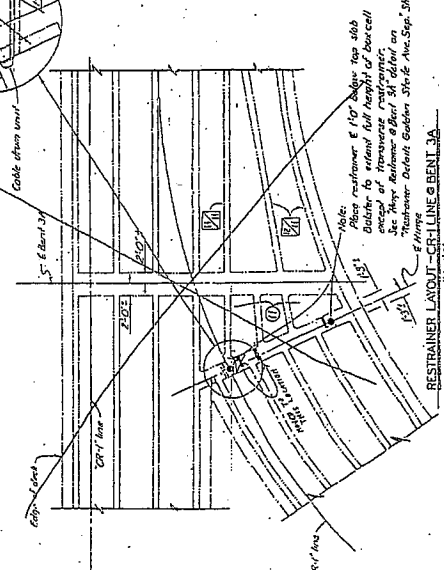
RESTRAINER LAYOUT - CR-1 LINE @ BENT 2
 15'-0"



RESTRAINER LAYOUT - CR-1 LINE @ BENT 4
 15'-0"



RESTRAINER LAYOUT - RAMP R-1
 15'-0"



RESTRAINER LAYOUT - CR-1 LINE @ BENT 3A
 15'-0"

SHEET 13	DESIGN 1-62	CHECKED 1-62	DATE 1-62	BY J. L. Thompson	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	STRUCTURES - DESIGN 9/1/62	30556 2.0	EARTHQUAKE UPGRADING PROJECT '66' RESTRAINER LAYOUT GOLDEN ST. AVE. SER. G	72-1/6
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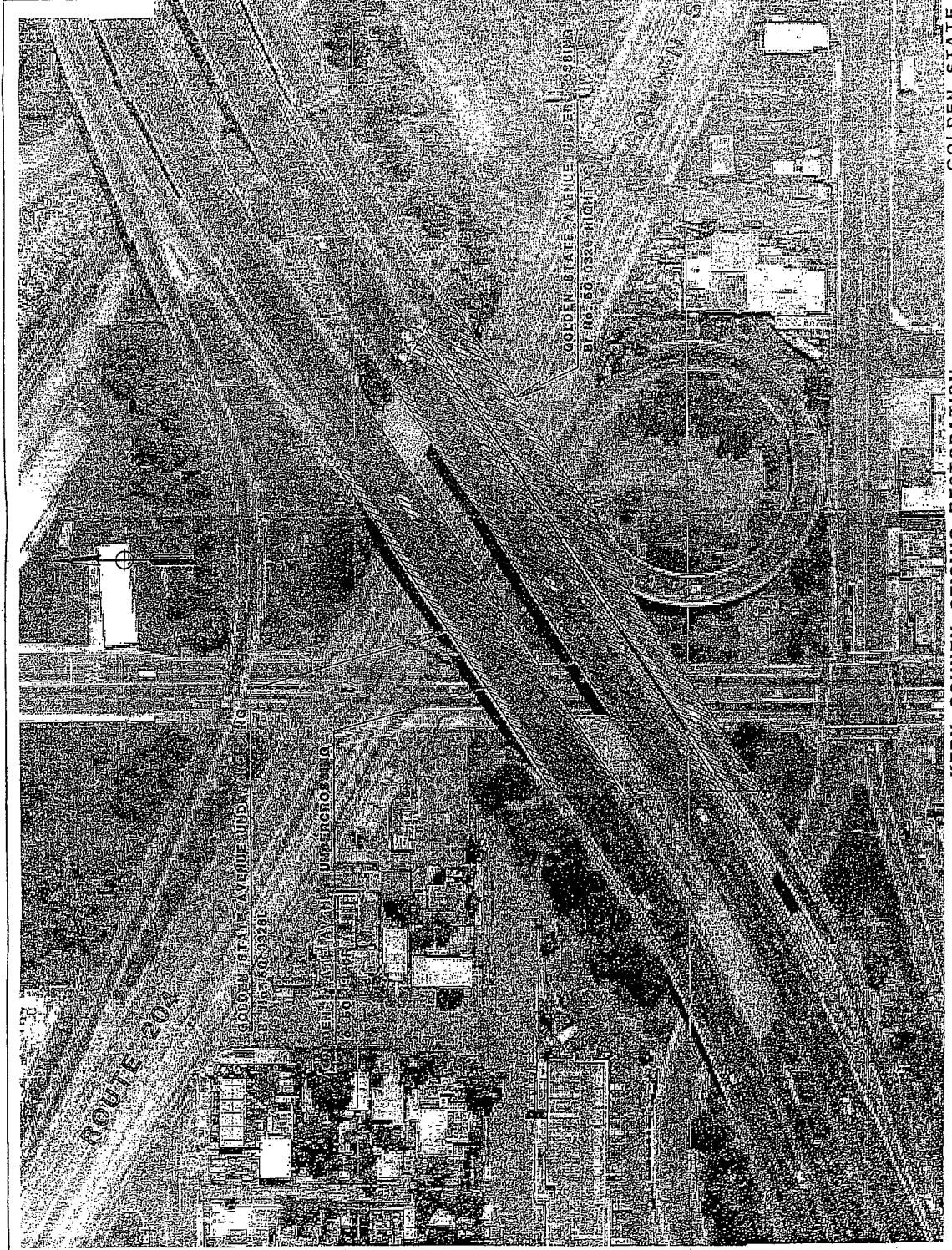
THESE PLANS ARE A PART OF THE PROJECT AND ARE NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

J. L. Thompson
 J. L. Thompson & Associates, Inc.
 1000 S. G Street
 Los Angeles, California

DATE	COUNTY	ROUTE	POST MILES	SHEET TOTALS
06	KBR	99,178	26.78, R1.95	NO. SHEETS

REGISTERED CIVIL ENGINEER	DATE	REVISIONS
RECEIVED	APPROVAL DATE	NO. SHEETS

THE STATE OF CALIFORNIA ON ITS OFFICERS
 AND AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE CONSTRUCTION OF THIS PLAN SHEET.



KERN COUNTY SEISMIC RESTORATION
 GOLDEN STATE AVENUE UNDERCROSSING
 ROUTE 178 PM R1.95
 LAYOUT
 L-2

SCALE: Horiz 1"=50'
 Vert 1"=50'

UNIT 1458 PROJECT NUMBER & PHASE 0000000000X

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	ALL R. ALQATMI	CHECKED BY	DATE REVISION
FUNCTIONAL SUPERVISOR	DESIGNED BY	RANJIT K. MONDAL	REVISION	DATE REVISION

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

PROJECT DESCRIPTION:

Limits: In Kern County in Bakersfield at Airport Drive Overcrossing and at Golden State Avenue Separation

Proposed Improvement: (Scope of Work) The project proposes to mitigate seismic deficiencies by retrofitting the bridges. Existing C-1 restrainers will be replaced with pipe seat extenders, full height steel column casings will be installed on all columns, bent cap 2 of Br No. 50 0266 will be retrofitted to strengthen the existing bent cap. Abutment 1 will have seat extenders, bent 5 will be widened by 1'-6" on each side and bent 6 by 1'-6" on one side for Br No. 50 0326L/R/CR-1 Line. The footing of single column at bent 3 for CR-1 Line will be enlarged in all dimensions and additional pile installed to upgrade the footing capacity.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	Total of Sections 1 - 10 shown above	\$ 2,172,869
TOTAL STRUCTURES ITEMS		\$ 3,944,000
SUBTOTAL CONSTRUCTION COSTS		\$ 6,116,869
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		\$ 36,930
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 6,153,799

Reviewed by
 District Program Manager:

(Signature)

(Date)

Approved by Project Manager:

(Signature)

(Date)

Phone Number:

(559) 243-3457

Form revised 12/01/09

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

I. ROADWAY ITEMS

	Quantity	Unit	Unit Price	Item Cost	Section Cost
<u>Section 1 - Earthwork</u>					
Roadway Excavation		CY	\$0	\$0	
Imported Borrow		CY	\$0	\$0	
Clearing & Grubbing	1	LS	\$25,000	\$25,000	
Develop Water Supply	0	LS	\$0	\$0	
Top Soil Reapplication			\$0	\$0	
Stepped Slopes and Slope			\$0	\$0	
Rounding (Contour Grading)			\$0	\$0	
			\$0	\$0	
Subtotal Earthwork:					\$25,000
<u>Section 2 - Pavement Structural Section</u>					
PCC Pvmnt Depth	0	CY	\$0	\$0	
PCC Pvmnt Depth	0	CY	\$0	\$0	
Asphalt Concrete	0	Ton	\$0	\$0	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	0	CY	\$0	\$0	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	SF	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
Subtotal Pavement Structural Section:					\$0
<u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	0	LS	\$0	\$0	
Pumping Plants	0	LS	\$0	\$0	
Project Drainage	0	LS	\$0	\$0	
				\$0	
Subtotal Drainage:					\$0

* Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-OK810K
 Program Code: 20.10.201.113

<u>Section 4 - Specialty Items</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Retaining Walls	0	SF	\$0	\$0	
Noise Barriers	0	EA	\$0	\$0	
Remove /construct MBGR	400	LF	\$50	\$20,000	
Transition Railing (Type WB)	3	EA	\$4,500	\$13,500	
Alternate Flared Terminal System	2	EA	\$3,000	\$6,000	
End Anchor Assembly (Type SFT)	2	EA	\$4,000	\$8,000	
Remove/Reconstruct Concrete Barrier	140	LF	\$60	\$8,400	
Remove/Reconstruct concrete barrier (Type E)	160	LF	\$200	\$32,000	
Remove/Reconstruct AC dike	800	LF	\$8	\$6,400	
Water Pollution Control	1	LS	\$160,000	\$160,000	
Hazardous Waste Investigation and/or Mitigation Work	1	LS	\$15,000	\$15,000	
Lead Compliance Plan	1	LS	\$3,000	\$3,000	
Swallows Exclusion	1	LS	\$200,000	\$200,000	
Resident Engineer Office Space	1	LS	\$50,000	\$50,000	
				\$0	
			Subtotal Specialty Items:		\$522,300
<u>Section 5 - Traffic Items</u>					
Lighting	0	LS	\$0	\$0	
Traffic Delineation Items	0	LS	\$0	\$0	
Traffic Signals	0	LS	\$0	\$0	
Overhead Sign Structures	0	EA	\$0	\$0	
Temporary K-Rail	1	LS	\$35,000	\$35,000	
Crash Cushion	1	LS	\$24,000	\$24,000	
Construction Area Signs	1	LS	\$4,000	\$4,000	
Channelizers	1	LS	\$1,000	\$1,000	
Maintain Traffic	1	LS	\$90,000	\$90,000	
Traffic Control Systems	1	LS	\$160,000	\$160,000	
Transportation Management Plan	1	LS	\$411,000	\$411,000	
Temporary Detection System	0	LS	\$0	\$0	
Staging	0	LS	\$0	\$0	
				\$0	
			Subtotal Traffic Items:		\$725,000

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

II. ROADSIDE ITEMS

<u>Section 6 Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Highway Planting	0	LS	\$0	\$0	
Replacement Planting	1	LS	\$75,000	\$75,000	
Maintain Existing Irrigation	1	LS	\$10,000	\$10,000	
Relocate Existing Irrigation	0	LS	\$0	\$0	
Facilities	0	LS	\$0	\$0	
Irrigation Crossovers	0	LS	\$0	\$0	
				\$0	
Subtotal Planting and Irrigation Section:					\$85,000

<u>Section 7: Roadside Management and Safety Section</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Vegetation Control Treatments	0	LS	\$0	\$0	
Gore Area Pavement	0	LS	\$0	\$0	
Pavement beyond the gore area	0	LS	\$0	\$0	
Minor Concrete (Island Paving)	5	CY	\$1,000	\$5,000	
Erosion Control	0	LS	\$0	\$0	
Slope Protection	0	LS	\$0	\$0	
Side Slopes/Embankment Slopes	0	LS	\$0	\$0	
Maintenance Vehicle Pull outs					
Off-freeway Access (gates, stairways, etc.)					
Roadside Facilities (Vista Points, Transit, Park & Ride, etc)	0	LS	\$0	\$0	
Relocating roadside facilities/features	0	LS	\$0	\$0	
				\$0	
Subtotal Roadside Management and Safety Section:					\$5,000

TOTAL SECTIONS 1 thru 7 \$1,362,300

NOTE:Extra lines are provided for items not listed; use additional lines as appropriate.

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				<u>Item Cost</u>	<u>Section Cost</u>
(Subtotal Sections 1 thru 7)	<u>\$1,362,300</u>	x	<u>0.10</u> (5 to 10%)	=	<u>\$136,230</u>
TOTAL Minor Items:					<u>\$136,230</u>

Section 9 - Roadway Mobilization

(Subtotal Sections 1 thru 8)	<u>\$1,498,530</u>	x	<u>0.10</u> (10%)	=	<u>\$149,853</u>
TOTAL Roadway Mobilization:					<u>\$149,853</u>

Section 10 - Supplemental Work & Contingencies

Supplemental Work

(Subtotal Sections 1 thru 8)	<u>\$1,498,530</u>	x	<u>0.10</u> (5 to 10%)	=	<u>\$149,853</u>
------------------------------	--------------------	---	---------------------------	---	------------------

Contingencies

(Subtotal Sections 1 thru 8)	<u>\$1,498,530</u>	x	<u>0.25</u> (**%)	=	<u>\$374,633</u>
------------------------------	--------------------	---	----------------------	---	------------------

Supplemental Work & Contingencies: \$524,486

TOTAL ROADWAY ADDITIONS Sections 8 thru 10: \$810,569

TOTAL ROADWAY ITEMS: \$2,172,869

(Subtotal Sections 1 thru 10)

Estimate Prepared
by:

Ranjit Mondal
(Print or Type Name)

Phone: 559-243-3596

10/12/11
(Date)

Estimate Checked
by:

Geo Leyva
(Print or Type Name)

Phone: 559-243-3571

10/12/11
(Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

<http://www.dot.ca.gov/hq/oppd/pdpm/pdpmn.htm> - pdpm

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
	(Br No. 50-0266)	(Br No. 50-0326)	
Bridge Name			
Structure Type			
Width (out to out) - (ft)			
Span Length - (ft)	0	0	0
Total Area - ft ²	0	0	0
Footing Type (pile/spread)	0	0	0
Cost per ft ²	0	0	0
(incl. 10 % mobilization and 20 % contingency)			
Total Cost for Structure	\$1,033,000	\$2,911,000	\$0

SUBTOTAL STRUCTURES ITEMS \$3,944,000
 (Sum of Total Cost for Structures)

Railroad Related Costs (Not incl. in R/W Est) \$0
\$0

SUBTOTAL RAILROAD ITEMS \$0

TOTAL STRUCTURES ITEMS \$3,944,000

(Sum of Structures items plus Railroad Items)

COMMENTS:

Estimate Prepared
 by: _____

(Print or Type Name)

Phone: _____

10/11/11
 (Date)

(If appropriate, attach additional pages as backup)

PLANNING COST ESTIMATE



Dist-Co-Rte: 06-Ker-99,178
 PM: PM 26.78,R1.95
 EA: 06-0K810K
 Program Code: 20.10.201.113

III. RIGHT OF WAY ITEMS

No. of years for Escalation =

0

	Current Values	Rate (%)	Escalation Factor	Escalated Values
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$0	5.0	1.00	\$0
B. Utility Relocation (State Share)	\$0	5.0	1.00	\$0
C. Biological Mitigation	\$36,930	5.0	1.25	\$44,889
D. Clearance/Demolition	\$0	7.0	1.00	\$0
E. Title and Escrow Fees	\$0	4.0	1.20	\$0
TOTAL RIGHT OF WAY** ITEMS=	\$36,930			\$44,889 (Escalated Value)

Anticipated Date of Right of Way Certification: 04/01/16
 (Date to which Values are Escalated)

F. Construction Contract Work

Brief Description of Work

Right of Way Branch Cost Estimate for Work * \$0

* This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way Items

COMMENTS:

Estimate Prepared by:

Houa Yang
 (Print or Type Name)

Phone: 559-445-6243

10/18/11
 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).



Preliminary Environmental Analysis Report

Project Information

District	6	County	Ker	Route	99/178/204	Post Mile	Various	EA	06-0K810K
Project ID#:	06-1200-0108								
Project Title:	Kern Bridges Seismic Restoration								
Project Manager:	Judy Aguilar	Phone #:	(559) 243-3457						
Design Manager:	Ali R Alqatami	Phone #:	(599) 243-3475						
Design Engineer:	Ranjit Mondal	Phone #:	(559) 243-3596						
Environmental Manager:	Kirsten Helton	Phone #:	(559) 455-6282						
Environmental Planner:	Phong Duong	Phone #:	(559) 455-6206						

PSR Summary Statement

The anticipated environmental document for the proposed project is a Mitigated Negative Declaration/Categorical Exclusion 6004. This document level has been selected based on the potential impacts to kit fox habitat which is anticipated to be mitigated below the threshold of significance as defined by CEQA. The California Department of Transportation would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/California Environmental Quality Act) environmental document. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The estimated time to obtain environmental approval is 12 months from the start of environmental studies. Assuming a start date for environmental studies of November 2011, a final environmental document would be anticipated by November 2012.

It is anticipated multiple environmental studies and reports will be required for this project including, but not limited to: Initial Site Assessment, Historic property survey report, Historical resources evaluation report, Natural Environmental Study and informal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS).

Project Description

The California Department of Transportation (Caltrans) proposes a seismic safety improvement project to address seismic deficiencies of four bridges on State Route 99, 178 and 204 in Kern County. The bridges are: Airport Dr OC (Br No 50-0266), Golden State Ave Sep (50-0326R), Golden State Ave Sep (50-0326L) and Golden State Ave Sep (50-0326F).

Purpose and Need

The purpose of this project is to improve safety by upgrading the seismic deficiencies of the following four bridges; Airport Dr OC (Br No 50-0266), Golden State Ave Sep (50-0326R), Golden State Ave Sep (50-0326L) and Golden State Ave Sep (50-0326F) on State Route 99 and State Route 178 in Kern County.

Description of Work

The proposed improvements include replacing and removing the existing C-1 restrainers with pipe seat extenders. Full height steel column casings and bent cap retrofits would be installed on all columns of the four bridges. Retrofits would be made on Bent 2 to strengthen the existing Bent Cap on bridge number 50-0266 (Airport Dr OC). In addition, at Airport Drive bridge Bent 5 will be widened by 6 inches to 1 foot on each side, and Bent 6 will be widened by 6 inches to 1 foot on one side. At bridge number 50-0326 (Golden State Avenue), the footing of single column bent at Bent 3 for "Right CR-1 Line" would be enlarged in all dimensions and additional piles installed on Golden State Ave (50-0326R) and Golden State Ave (50-0326L) to upgrade the footing capacity.

Alternatives

There are two alternatives being considered for this project. Alternative 1 is proposed to address seismic deficiencies and Alternative 2 is the "No-Build Alternative."

Funding

☒ State ☒ Federal

This project is included in the 2012 State Highway Operation and Protection Program (SHOPP) and under the 201.113 Bridge Seismic Restoration Program. A Project Scope Summary Report is needed to make the project a candidate for SHOPP funding.

Anticipated Environmental Approval**CEQA**

- ☐ Categorical Exemption/Statutory Exemption
☒ Negative Declaration/Mitigated ND(☐ Appendix G)
☐ Environmental Impact Report

NEPA

- ☒ Categorical Exclusion (☒ 6004/☐ 6005)
☐ Finding of No Significant Impact
☐ Environmental Impact Statement

Anticipated Environmental Schedule

Total Time for Environmental Approval	12 months
Start Date	November 1, 2011
Begin Environmental	November 1, 2011
Draft Environmental Document	May 30, 2012
Final Environmental Document	September 23, 2012
PA&ED*	November 1, 2012

*PA&ED is generally 1 month following the FED date

Assumptions and Risks

Assumptions:

- Contractor would conduct a bridge survey and conduct Aerial Deposited Lead investigation if new piles are to be drilled for bridges.
- No cultural resources or paleontological resources would be encountered.
- No right-of-way acquisition is anticipated.
- An Opportunity for Public Hearing would be required.

Risk Probability Ranking	
Ranking	Probability of Risk Event
5	60-99%
4	40-59%
3	20-39%
2	10-19%
1	1-9%

Risks on project scope, cost, and/or schedule:

Evaluating Impact of a Threat on Project Objectives						
Impact		Very Low	Low	Moderate	High	Very High
Objectives	Time	Insignificant Schedule Slippage	Delivery Plan Milestone Delay within quarter	Delivery Plan milestone delay of one quarter	Delivery Plan milestone delay of more than 1 quarter	Delivery Plan milestone delay outside fiscal year
	Cost	Insignificant Cost Increase	<5% Cost Increase	5-10% Cost Increase	10-20% Cost Increase	>20% Cost Increase
	Scope	Scope decrease is barely noticeable	Changes in project limits or features with <5% Cost Increase	Changes in project limits or features with 5-10% Cost Increase	Sponsor does not agree that Scope meets the purpose and need	Scope does not meet purpose and need

Percentage of cost increase is calculated based on increase of the component, not total cost of the project.

- If Caltrans cannot obtain "Not likely to adversely affect" determination, there would be a corresponding impact to the project schedule and cost. Probability of occurrence is 3, the impact to the schedule could lead to an additional 6-8 months, and the impact to cost would be moderate.
- If an additional alternative is presented that was not addressed as part of this PEAR there would be a corresponding impact to Scope, Cost and Schedule. Probability of occurrence is 1, the impact to Scope would be moderate, impact to Cost would be moderate, and impact to the schedule could lead to an additional 6-9 months.

Mitigation

Mitigation for potential hazardous waste contamination involves remediation of Asbestos Containing Material (ACM) in bridge structures, lead based paint systems, and Aerially Deposit Lead (ADL). Further studies and permits may require the need for mitigation, which would be added to the cost of the project and included in an updated Mitigation Cost Compliance Estimate Form.

Right of Way Capital (050)

- California Department of Fish and Game document review fee: \$2,044 (2011 dollars).
- Regional Water Quality Control Board Permit 401 would cost \$ 4,000.
- The preliminary estimated cost for mitigation for the San Joaquin kit fox would be \$11,000 per acre. ($\$11,000 \times 2 \text{ acres} = \$22,000$).
- U.S. Army Corps of Engineers Section 404 permit is \$1,500 per acre.
- Please note cost may vary depending on acreage evaluated from biological studies.

Construction Capital (042)

- Swallows exclusion mitigation would cost approximately \$200,000 for all four bridges.
- Lead Compliance Plan-\$3,000.
- Hazardous waste bridge survey would cost \$15,000.

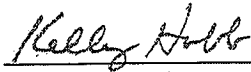
Disclaimer

This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Initiation Document. Changes in project scope, alternatives, or environmental laws will require a reevaluation of this report.

Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

Approved by:



Environmental Manager

Date: 10/12/2011



Environmental Office Chief

Date: 10/12/11



Project Manager

Date: 10/12/11

Environmental Technical Reports or Studies Required

Required—requires analysis including field surveys, database searches, report, or memo to file and brief explanation in the environmental document.

Not Required—Issue is not applicable to the proposed project.

Possible Critical Path—Major issue that has the potential to drive the schedule and determine the length of time to reach PA&ED (can be more than one major issue).

	Required	Clearance Memo Received	Not Required	Possible Critical Path
Biology		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Endangered Species (Federal)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Endangered Species (State)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Wetland Delineation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Natural Environment Study	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Biological Assessment (USFWS, NMFS, State)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Cultural Resources				<input type="checkbox"/>
ASR	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
HRER	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
HPSR/HRCR	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Screening Memo	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
SHPO Concurrence	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Native American Coordination	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Finding of Effect Document	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Treatment Plan & MOA	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Hazardous Waste		<input type="checkbox"/>		<input type="checkbox"/>
ISA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
PSI	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
ADL	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Editing ssp/nssp	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Air Quality Analysis		<input checked="" type="checkbox"/>		<input type="checkbox"/>
Hot Spot Analysis	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
MSAT	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Noise Study	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Impact Assessment				<input type="checkbox"/>
Environmental Justice	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Growth Related Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Cumulative Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Farmland	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Visual Resources		<input checked="" type="checkbox"/>		<input type="checkbox"/>
Scenic Resource Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Visual Impact Assessment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Floodplain Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paleontology	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Section 4(f) Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wild and Scenic River Consistency	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Geology	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Topology	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Soils	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Greenhouse Emissions	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Permits Anticipated for Construction

	<u>Required</u>	<u>Not Required</u>
401 Permit Coordination (discharge into navigable waters)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
404 Permit Coordination (discharge into waters of the US including wetlands)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> - Nationwide		
<input type="checkbox"/> - Individual		
1600 Permit (Streambed Alteration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
City/County Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NPDES Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>
US Coast Guard (Section 10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State 2081 Permit (State only incidental take of threatened or endangered species)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Technical Review

Biology

Biological surveys and studies are required. Potential impacts to the San Joaquin kit fox would require a Biological Assessment and consultation with mitigation under programmatic agreement. Special Provisions for migratory birds, (swallow), San Joaquin kit fox, and Environmentally Sensitive Area would be necessary. Swallow exclusion is anticipated and would cost approximately \$200,000. There are wetlands within the project limits. A Natural Environmental Study and Biological Assessment would need to be completed for an informal Section 7 Consultation. The impacts to kit fox habitat are expected to be minimal with mitigation measures. A pre-construction survey and incidental take permit from the California Department of Fish and Game will be required.

Cultural Resources

Due to the urban environment and past construction activities, it is assumed that no archaeological sites would be located within the project area. The Golden State Ave Separation (Bridge Numbers 50-0326 L, R, F) carries State Route 178 over State Route 204 and is listed on the California Historic Bridge Inventory as Category 5 rating (Ineligible for the National Register). A recent study conducted in the project area found that SR 204 was eligible for inclusion in the National Register of Historic Places. While the bridge does not contribute to the eligibility of State Route 204, the project cannot be considered for Screening in accordance with the Caltrans Section 106 PA. Based on the proposed project activities the project would have no effect on State Route 204. A Historic Property Survey Report will be prepared documenting a finding of No Historic Properties Affected.

Hazardous Waste

Hazardous waste concerns for the project include asbestos-containing materials in structures, lead-based paint systems, and aerially deposited lead contamination. Hazardous waste technical studies would include review of the bridge structures for asbestos-containing materials. An Initial Site Assessment and a Preliminary Site Investigation would be done to determine the extent of potential hazardous material contamination and to recommend proper handling and disposal of any found material.

Air Quality Analysis

The proposed project would not impact local air quality. A clearance memo was received on September 14, 2011.

Noise Study

The proposed project is not considered Type 1 under NEPA. No further analysis is necessary per the Noise memo dated September 14, 2011.

Water Quality

This project would not adversely affect the water quality in the project area per Water Quality memo dated September 14, 2011. Best Management Practices need to be selected and implemented in accordance with the Project Planning and Design Guide. National Pollutant Discharge Elimination System coordination would be required.

Community Impact Assessment

There would be no impacts to the community anticipated.

Cumulative Impacts

There are no cumulative impacts anticipated.

Farmland

There would be no farmland impacts anticipated.

Visual Resources

The proposed project would not impact visual resources. A clearance memo was received on September 14, 2011

Floodplain Evaluation

Based on the Flood Insurance Rate Map (FIRM) Community Panel Numbers 06029C 1818 E, and 06029C1819 E, the project area is in "Zone X," which is defined as areas outside the 0.2% annual chance of floodplain. The proposed project would not increase the base flood backwater elevations and does not constitute a significant floodplain encroachment. A Floodplain Evaluation Report is not required per the Floodplain memo dated September 14, 2011.

Paleontology

According to the California State University of Fresno, Department of Geology Paleontological Sensitivity Mapping Project database, the geologic units within the project limits are identified as low sensitivity for paleontological resources. Because project specific information is not available at this PEAR stage, potential impacts to paleontological resources should be re-evaluated when more project information is determined per Paleontology memo dated September 19, 2011.

Section 4(f) Evaluation

There would be no 4(f) impacts anticipated.

Wild and Scenic River Consistency

There is no wild and scenic river within the proposed project area. No further study is required.

Geology

The proposed project would not alter the existing conditions with respect to geology and soils in the vicinity of the project area. No further study is required.

Topology

The proposed project would not impact the existing conditions with respect to topology in the vicinity of the project area. No further study is required.

Soils

The proposed project would not alter the existing conditions with respect to soils in the vicinity of the project area. No further study is required.

Greenhouse Emissions

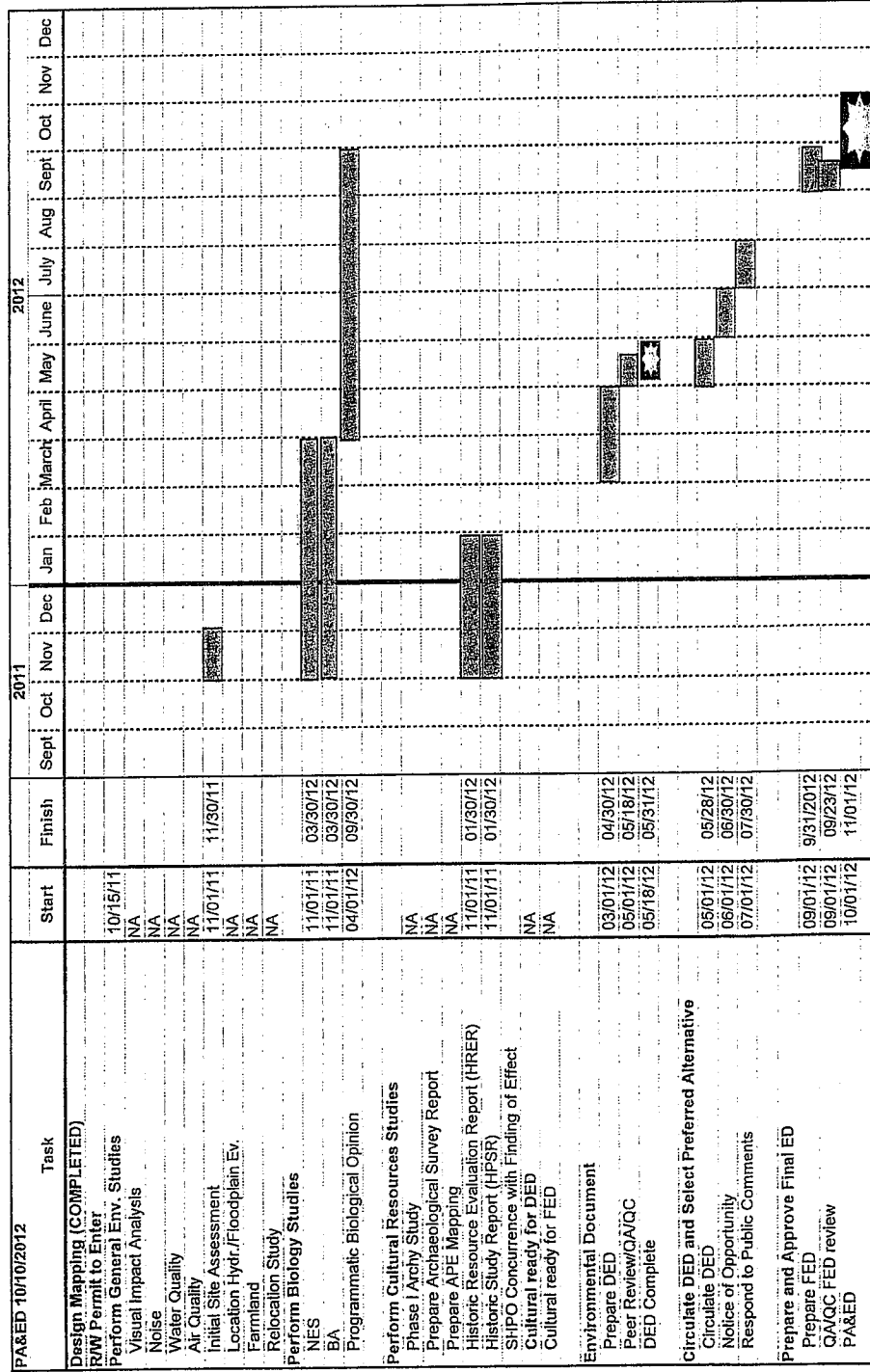
The project is not considered to be a "major project" for the consumption of energy during project construction or operation and expected to have the no potential for climate change impacts.

Permits.

- 2081, 401 Coordination and NPDES permits are required.

List of Preparers

Hazardous Waste by Susan Greenwood	9/12/2011
Biological by Primavera Parker	9/22/2011
Cultural by Kelly Hobbs	9/12/2011
Community Impact by Phong Duong	10/10/2011
Visual by Brad Cole	9/14/2011
Floodplain by Masis Kayaina	9/13/2011
Paleontology by Richard C. Stewart	9/19/2011
Preliminary Environmental Analysis Report by Phong Duong	10/12/2011



Central Region Environmental Division Mitigation Cost Compliance Estimate (MCCE)

This MCCE is for: **PEAR**

Dist - Co - Rte - PM: <u>06-KER-99-26.7</u>	EA: <u>06-OK810</u>
Project Name: <u>Kern County Seismic Restoration</u>	Alternative #: _____
Project Description: <u>SEISMIC RESTORATION</u>	(If applicable)
Environmental Senior: <u>Kirsten Helton</u>	Phone Number: <u>559-445-6282</u>
Design Manager: _____	Phone Number: _____
Design Engineer: <u>Ranjit Mondal</u>	Phone Number: <u>559-243-3596</u>
Project Manager: <u>Judy Aguilar</u>	Phone Number: <u>(559) 243-3457</u>
Date: <u>9/26/2011</u>	
MCCE Prepared By: <u>Phong Duong</u>	Phone Number: <u>559-445-6206</u>

	Right of Way Capital (Prior to Construction 050-\$'s)	Construction Capital (During & Post Construction 042-\$'s)
Archaeological		
Architectural History		
Paleontology		\$0
Hazardous Waste		\$15,000
Air Emissions		
Biological		
Mitigation parcels (acre/dollars)	/	
Mitigation/Bank Credits (acre/dollars)	/	\$22,000
Monitoring		
Permit Fees		
DFG Fee		\$2,044
401		\$4,000
404 Nationwide		\$1,500
Lead compliance plan		\$3,000
Swallows Exclusion		\$200,000
Other		
TOTAL	\$29,544	\$218,000

Approved By: _____

Environmental Branch Chief

Office of Environmental Mitigation

Date: 10/12/11

Date: 10-14-2011

This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, at completion of the Final Environmental Document, and during preparation of the PS&E.
This form is to be completed for all SHOPP, STIP, and Minor A & B projects (even those without mitigation).
Include all costs necessary to complete the commitment including: capital outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting by consultants during the construction phase; and any follow-up maintenance post construction.
Timing of Enhancement/Endowment funds will depend on which agency is requiring the mitigation. Funds may need to be available as 050 or as 042

Memorandum

To: JUDY AGUILAR

Date: 10/24/2011

File: CD 06 EA 0K810K Alt Rev1

Attn RANJIT K MONDAL

Co KER RTE 99

DESCRIPTION:
SEISMIC RESTORATION

From: Department of Transportation
Division of Right of Way Central Region

Subject: RIGHT OF WAY DATA SHEET

We have completed an estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated 10/17/2011

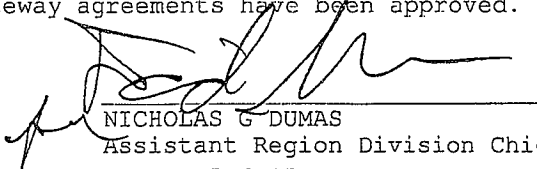
The following assumptions and limiting conditions were identified:

Appraisal

Utility

Per the Right of Way Data Sheet Request Form submitted by Project Engineer, Ranjit Mondal, the work consists of existing columns to be retrofitted by full height steel casings around them, one column footing is to be enlarged in all dimensions by piling. The work will be completed within existing right of way underneath the bridge deck. There is no utility relocation conflict and no potholing is required. A utility permit search was not completed at the time of the request.

Right of Way Lead Time will require a minimum of 12 months after we receive Certified Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental clearance and applicable freeway agreements have been approved.


NICHOLAS G DUMAS

Assistant Region Division Chief, Right of Way
(559) 445-6195

Right Of Way Cost Estimate

	Current Year 2012	Contingency Rate	Right of Way Escalation Rate	Escalated Year 2016
Acquisition:	\$0	25%	5%	\$0
Mitigation:	\$36,930	25%	5%	\$44,889
State Share of Utilities:	\$0	25%	5%	\$0
Expert Witness:	\$0	25%	5%	\$0
Relocation Assistance:	\$0	25%	5%	\$0
Demolition and Clearance:	\$0	25%	5%	\$0
Title and Escrow:	\$0	25%	5%	\$0
Ad Signs:	\$0	25%	5%	\$0
Total Current Value:	\$36,930			\$44,889
If RW Cost Est fields are blank, Costs = \$0				

Estimated Construction Contract Work (CCW):

0 R/W LEAD TIME/Mo. 1

Cost Break Down

Pot Hole

Mitigation

Land 0
 Bank 22,000
 Permit Fee 7,544

Parcel Data

# of Parcel Type X:			
# of Parcel Type A: less than \$10,000 non-complex	0		
# of Parcel Type B: more than \$10,000 non-complex	0		
# of Parcel Type C: complex, special valuation	0		
# of Parcel Type D: most complex and time consuming	0	# of Duals Needed:	0
Totals:	0	Totals:	0

of Excess Parcels: 0

Misc R/W Work

# of RAP Displacements:	0
# of Clearance/Demos:	0
# of Const Permits:	0
# of Condemnations:	0

RR Involvement

Railroad Facilities or Right of Way Affected?	
Const/Maint Agreement:	
Service Contract:	
Right of Entry:	
Clauses:	
Estimated Lead-time	

Utilities

U4-1: Owner Expense	
U4-2: State Expense, Conventional no Fed Aid	
U4-3: State Expense, Freeway no Fed Aid	
U4-4: State Expense, both with Fed Aid	
U5-7: Utility verification, no relocation/potholing	
U5-8: Utility verification, w/ some relocation/potholing	
U5-9: Utility verifications, relocation/potholing required	

EA: 06-0K810K

ALT: Rev1

Parcel Area

Total R/W Required: 0

Total Excess Area:

General Description of R/W and Excess Lands Required (zoning, use, major improvements, critical or sensitive parcels, etc.):

General Description of Utility Involvement:

The project proposes Bridge Seismic Restoration in Kern County on State Routes 99 and 178 at PM 26.78 and R1.95.

Is there a significant effect on assessed valuation:

No

Were any previously unidentified sites with hazardous waste or material found:

No

Are RAP displacements required:

No

of single family:

of multi-family:

of business/nonprofit:

of farms:

Sufficient replacement housing will be available without last resort housing:

Are material borrow or disposal sites required:

No

Are there potential relinquishments or abandonments:

No

Are there any existing or potential airspace sites:

No

Are environmental mitigation parcels required:

No

Data for evaluation provided by:

Estimator:

H Yang

10/18/2011

Railroad Liaison Agent:

Utility Relocation Coordinator:

Stephanie Rendon-Fuentes

10/18/2011

I have personally reviewed this Right of Way Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

Date

ENTERED PMCS

10/24/2011

BY: H Yang

NICHOLAS G DUMAS

Assistant Region Division Chief, Right of Way

Department of Transportation
District 6

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

06-Ker 99,178-PM 26.78,R1.95

KERN COUNTY SEISMIC RESTORATION

PROJECT NUMBER: 0612000108-K



October 10, 2011

Prepared For: ALI ALQATAMI, Design Senior
Office of Design I, Branch Z

Prepared By: FLORENCIA ALLENGER

Concurred By:

Approved By:


BENJAMIN C. CAMARENA
District 6 – District Traffic Manager
JOSE FERNANDEZ, JR., P.E.
District 6 – TMP Manager

This Transportation Management Plan (TMP) data sheet is prepared in response to a request from Office of Design I, Branch Z dated October 6, 2011.

Attached is the TMP Data Sheet for the above referenced project. Per Deputy Directive 60, TMP must be considered at the early stage of all projects and activities performed on the State Highway System. The following items shall be included in the project initiation document (PID):

- 1) The TMP Data Sheet shall be attached to the project initiation document (PID).
- 2) Any costs associated with the traffic impact mitigation measures listed in the TMP Data Sheet shall be included in the PID estimate.
- 3) The following statements shall be included in the body of the PID:

“Preliminary traffic impacts and mitigation for this project have been outlined in the attached Transportation Management Plan Data Sheet (TMP Data Sheet). Costs associated with the traffic impact mitigation measures listed in the TMP Data Sheet have been included in this documents estimate.”

ATTACHMENT-G

TMP Data Sheet
Design Senior: Ali Alqatami
Date: October 10, 2011

Project No. 0612000108-K

Cty/Rte/PM: Ker 99,178-PM 26.78,R1.95
Office of Design 1, Branch Z
Page 2 of 2

“A TMP for this project is required and should be requested when the design is complete enough to determine specific traffic impacts, but yet early enough to make design changes/additions required for traffic mitigation.”

“Lane closure charts and detailed TMP will be provided during PS&E stage.”

“Lane closures are not allowed when the traffic volume is beyond the capacity of the remaining lanes. Nighttime work outside peak hours is anticipated for this project.”

If you have any questions, please contact me at 559-444-2492.

Attachments:

- TMP Data Sheet

DISTRICT 6 - TRANSPORTATION MANAGEMENT PLAN

DATA SHEET

(TMP Elements and Costs)

CO/RTE/PM	KFR 99,178 PM 2678,R1:95	PROJ. NO.	0612000108-K
PROJECT NAME	Kern County Seismic Restoration		
PROJECT LIMIT	In Kern County in Bakersfield at Golden State Avenue Undercrossing and at Airport Drive Overcrossing		
PROJECT DESCRIPTION	Retrofit existing bridge overcrossings		

A) *The project includes the following:*
(Check all that applicable type of facility closures.)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Highway or Freeway Lanes | <input type="checkbox"/> Freeway Off-ramps |
| <input checked="" type="checkbox"/> Highway or Freeway Shoulders | <input type="checkbox"/> Freeway On-ramps |
| <input type="checkbox"/> Freeway Connectors | <input type="checkbox"/> Local Streets |

B) *Are there any construction strategies that can restore existing number of lanes?*
☒ No ☐ Yes (Check all applicable strategies.)

- ☐ Temporary Roadway Widening Structure Involvement? ☐ Yes ☒ No (If yes, notify Project Manager)
- ☐ Lane Restriping (Temporary narrow lane widths)
- ☐ Roadway Realignment (Detour around work area)
- ☐ Median and/or Right Shoulder Utilization
- ☐ Use of HOV lane as Temporary Mixed Flow Lane
- ☐ Staging Alternatives (Explain Below)

C) *Calculated Delay*
(To be performed if construction strategies in Item B do not mitigate congestion resulting from Item A or on all projects along Interstate 5 and Route 99)

- | | |
|--|-----------------|
| 1. Estimated Maximum Individual delay | _____ minutes |
| 2. Existing or Acceptable Individual Vehicle Delay | _____ minutes |
| 3. Estimated Individual Vehicle Delay Requiring Mitigation | _____ minutes |
| 4. Estimate Delay Cost (Most Applicable) | |
| <input type="checkbox"/> Extended Weekend Closure | |
| <input type="checkbox"/> Weekly (7 days) | |
| 5. Estimated Duration of Project Related Delays | _____ # of Days |
| 6. Cost of Construction Related delays | _____ |

TMP Estimates based on X-Number of Working Days
requiring Lane/Shoulder/Ramp/Freeway/Highway Closures: 110 Working Days

TMP DATASHEET

PAGE 2 OF 2

Date: October 10, 2011

Design Senior: Ali Alqaatani

Branch: Z

Office of Design:

Cnty/Rte: KER

PM: 26.78, R1.95

Project No: 0612000108-K

99178

D) Preliminary TMP Elements and cost: (Identify all elements and estimated costs that will be used to mitigate congestion resulting from the proposed construction activities.)

<p>1. Public Information - Bees # 066063</p> <p><input type="checkbox"/> Brochures & Mailers</p> <p><input checked="" type="checkbox"/> Press Release/Media Alerts</p> <p><input type="checkbox"/> Paid Advertisements</p> <p><input type="checkbox"/> Public Information Center/Kiosks</p> <p><input type="checkbox"/> Telephone Hotline</p> <p><input checked="" type="checkbox"/> Planned Lane Closure Website</p> <p><input type="checkbox"/> Project Website</p> <p><input type="checkbox"/> Pubic Meetings</p> <p><input checked="" type="checkbox"/> Freight Travel Information</p> <p>2. Motorist Information Strategies</p> <p><input checked="" type="checkbox"/> Traffic Radio Announcements</p> <p><input type="checkbox"/> Fixed CMS</p> <p><input checked="" type="checkbox"/> Portable CMS BEES 128650</p> <p><input type="checkbox"/> Temporary Motorist Information Signs</p> <p><input type="checkbox"/> Ground Mounted Signs (Detour)</p> <p><input type="checkbox"/> Dynamic Speed Message Sign</p> <p><input type="checkbox"/> Highway Advisory Radio</p> <p><input checked="" type="checkbox"/> CT Hwy Infom. Network (CHIN)</p> <p>3. Incident Management</p> <p><input checked="" type="checkbox"/> Transportation Management Center</p> <p><input type="checkbox"/> Traffic Management Team (TMT)</p> <p><input type="checkbox"/> Intelligent Transportation Systems</p> <p><input type="checkbox"/> Traff. Surveillance (Loop & CCTV)</p> <p><input type="checkbox"/> Helicopter Surveillance</p> <p><input type="checkbox"/> Tow/Freeway</p> <p><input checked="" type="checkbox"/> COZEEP BEES 066062</p> <p>4. Construction Strategies (In Addition to Elements Identified on Item B)</p> <p><input checked="" type="checkbox"/> Lane Requirement Chart</p> <p><input type="checkbox"/> Construction Staging</p> <p><input type="checkbox"/> Traffic Handling Plans</p> <p><input type="checkbox"/> Full Facility Closures</p> <p><input type="checkbox"/> Local Road Closures</p> <p><input type="checkbox"/> Lane Modifications</p> <p><input type="checkbox"/> One-Way Reversing Operation</p>	<p>4. Construction Strategies (In Addition to Elements Identified on Item B)</p> <p><input type="checkbox"/> Two-way Traffic On One Side</p> <p><input type="checkbox"/> Reversible Lanes</p> <p><input type="checkbox"/> Ramp/Connector Closure</p> <p><input checked="" type="checkbox"/> Night Work</p> <p><input type="checkbox"/> Extended Weekend Work</p> <p><input type="checkbox"/> Ped/Bicycle Access Improvements</p> <p><input type="checkbox"/> Maintain Business Access</p> <p><input checked="" type="checkbox"/> A + B Bidding</p> <p><input type="checkbox"/> Innovative Const. Techniques</p> <p><input checked="" type="checkbox"/> Coordination w/ Adj. Const. Site</p> <p><input type="checkbox"/> Speed Limit Reduction</p> <p><input type="checkbox"/> Traffic Screens</p> <p>5. Demand Management</p> <p><input type="checkbox"/> HOV Lane/Ramps</p> <p><input type="checkbox"/> Variable Work Hours</p> <p><input type="checkbox"/> Telecommuting</p> <p><input type="checkbox"/> Truck/Heavy Vehicle Restrictions</p> <p><input type="checkbox"/> Rideshare Promotions</p> <p><input type="checkbox"/> Ramp Metering</p> <p><input type="checkbox"/> Transit Incentives</p> <p><input type="checkbox"/> Shuttle Services</p> <p><input type="checkbox"/> Ridesharing/Carpooling Incentives</p> <p><input type="checkbox"/> Park & Ride Promotion</p> <p>6. Alternative Route Strategies</p> <p><input type="checkbox"/> Off-site Detours/Use of Alt. Rtes</p> <p><input type="checkbox"/> Signal Timing/Coord. Improvements</p> <p><input type="checkbox"/> Temporary Traffic Signals</p> <p><input type="checkbox"/> Signal Retiming</p> <p><input type="checkbox"/> Street/Intersection Improvements</p> <p><input type="checkbox"/> Turn Restrictions</p> <p><input type="checkbox"/> Parking Restrictions</p> <p>7. Other Considerations</p> <p><input type="checkbox"/> Application of New Technologies</p> <p><input type="checkbox"/> Other</p>
--	--

TOTAL ESTIMATED COST OF TMP \$411,000

PROJECT NOTES:

1. Current dollar values used. Inflation was not factored into the estimate.
2. There are no noise restrictions / moratoriums for night work.
3. Traffic Control/Maintain Traffic costs was not provided. Please consult with the OE or construction office for this estimate.
4. Portable CMS specified for this project by this estimate is designed for congestion relief as outlined by DD-60. Portable CMS required for other purposes should be included under other specifications.
5. COZEEP specified for this project by this estimate is designated for congestion relief as outlined by DD-60. COZEEP required for other purposes should be included under other specifications.
6. The TMP is a living document that is subject to change if material changes take place in the final version of the project phase or if changes are required during construction to respond to excessive levels of congestion.
7. Road User Cost will be calculated during PS&E phase to determine if project qualifies fro A+B consideration.

PREPARED BY:
Florescia Allenger

OFFICE OF TRAFFIC MANAGEMENT

DATE:
October 10, 2011

Short Form - Storm Water Data Report



Dist-County-Route: 06-Ker-99.178
 Post Mile Limits: PM 26.78.R1.95
 Project Type: SEISMIC RETROFIT
 Project ID (or EA): 0612000108 (EA: 06-OK810K)
 Program Identification: 20.10.201.113
 Phase: ☒ PID
 ☐ PA/ED
 ☐ PS&E

Regional Water Quality Control Board(s) CENTRAL VALLEY REGION (5F)

- | | | | |
|----|--|------------------------------|--|
| 1. | Is the project required to consider incorporating Treatment BMPs? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 2. | Does the project disturb 5 or more acres of soil? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 3. | Does the project disturb more than 1 acre of soil and not qualify for the Rainfall Erosivity Waiver? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 4. | Does the project potentially create permanent water quality impacts? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| 5. | Does the project require a notification of ADL reuse | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

If the answer to any of the preceding questions is "Yes", prepare a Long Form – Storm Water Data Report.

Estimate Construction Start Date: 11/01/2016

Construction Completion Date: 08/01/2018

Separate Dewatering Permit (if yes, permit number)

Yes ☐

Permit # _____ No ☒

Erosivity Waiver

Yes ☐

Date: _____ No ☒

This Short Form – Storm Water Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.


 Ranjit Mondal, Registered Project Engineer

10/24/2011
 Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:


 Marissa Nishikawa, District/Regional SW Coordinator or Designee

10-25-2011
 Date

(Stamp Required for PS&E only)



Caltrans Storm Water Quality Handbooks
 Project Planning and Design Guide
 July 2010

ATTACHMENT-H

Airport Dr & Golden St Ave UC
RETROFIT

SIGN UP SHEET

PDT MEETING

06-0K810

DATE : 10/05/2011

Time : 11:30 AM

NAME	DIVISION	BRANCH	TELEPHONE
1. Gloria Reyes-Gutierrez	STR. Design	Branch 6	916(227-8080)
2. David Alvarez	STR Design	#6	(916) 227-8511
3. GEO LEYVA	DESIGN 4	BRANCH Z	(559) 243-3571
4. Ranjit K Mondal	Design	Branch - Z	(559) 243-3596
5. LES INAGAKI	STR CONSTR	OSC-Bakersfield	(661) 391-4761
6. HISHAM ALVIATOUR	DOB CONSTR	Bakersfield	(661) 391-4747
7. Phong Duong	DB Env.	Fresno	(559) 445-6206
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			

CENTRAL REGION CONSTRUCTIBILITY REVIEW MEETING ATTENDANCE FORM

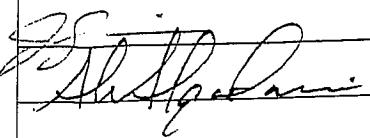
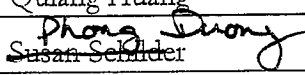
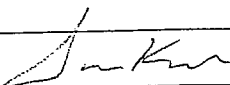
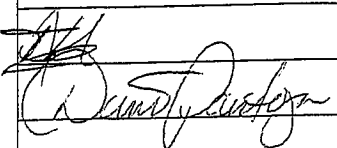
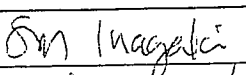
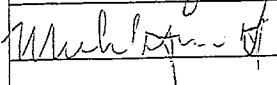
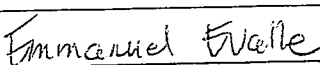
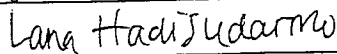
CO-RTE-PM Ker-99.178-PM 26.78,R1.95

REVIEW TYPE PID

DATE 10/24/2011

DISTRICT-EA 06-0K810K (EFIS: 0612000108)

SENIOR Ali R Alqatami

SIGNATURE	REVIEWER DEPARTMENT	INVITEE NAME	Returned Checklist	Had Comments	No Comments	Design Responded
	Project Management	Judy Aguilar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Project Development	Ali R Alqatami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Traffic Ops/Traffic Safety	Albert Lee	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Traffic Management	Benjamin Camarena	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Traffic Design	Mohammed Qatami	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Traffic Electrical Design	Ali Bakhoud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Electrical Systems	Jose DeAlba	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	District O.E.	Rochelle Simms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Construction Estimates	Doug Morrison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Landscape Architecture	Elbert Cox	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Material Engineering	Ted Mooradian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Geotechnical	Quiang Huang	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Environmental	Susan Schuler 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Maintenance	Bill Moses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Maintenance	Sam Katich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Hazardous Waste	Juergen Vespermann	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	TOMMY HARMONCHIE Hydraulics	Sam Wong	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Right of Way & Utilities	Dan Pantoja	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Surveys	Giana Cardoza	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Planning	Steven J McDonald	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	HQ Design Coordinator	Ken Cozad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	D6 Design Reviewer	Mike Janzen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Structures - HQ Liaison	Michael Downs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Structures-Construction	Les Inagaki	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Construction	for John Borquez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Construction	Wendy O'Halloran	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Storm Water	Marissa Nishikawa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PPM	Lana Hadi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Form last revised September 7, 2004

PJD Technical Support Branch

Ranjit K Mondal

Decision

Ranjit K Mondal

ATTACHMENT-J

Project Risk Register

DIST- EA 06-0K810					Project Name: Kern County Seismic Restoration			Project Manager: Judy Aguilar						Date Created: 09/27/11	Last Updated: 09/27/11		
					Co - Rte - PM: Kern-99-26.7, Ker 178 R1.95			Telephone: (559) 243-3457									
ITEM	ID #	Status	Threat / Opportunity	Category	Date Risk Identified	Risk Discription	Root Causes	Primary Objective	Overall Risk Rating	Cost/Time/Impact Value	Risk Owner	Risk Trigger	Strategy	Response Actions w/ Pros & Cons	Adjusted Cost/Time/Impact Value	WBS Item	Status Date and Review Comments
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1	06-0K810-01	Active	Threat	ENV	09/16/11	Endagered species mitigation	Kit fox issue	TIME	Probability 5=Very High (60-99%) Impact 16 =Very High	2 years	Kirsten Helton (559) 445-6282 Kirsten Helton@dot.ca.gov	Found kit fox dens	MITIGATE	Consult with F&WS and Fish and Game		165 PERFORM ENVIRONMENTAL STUDIES AND PREPARE DRAFT ENVIRONMENTAL DOCUMENT □175 and 180	
2	06-0K810-02	Active	Threat	ENV	09/16/11	Historical Property	Historic Highway	TIME	Probability 3=Med (20-39%) Med Impact 4 =Med	1 year	Kirsten Helton (559) 445-6282 Kirsten Helton@dot.ca.gov	Route 204 potentially eligible for National Register	AVOID	Consult with SHPO		165 PERFORM ENVIRONMENTAL STUDIES AND PREPARE DRAFT ENVIRONMENTAL DOCUMENT	
3	06-0K810-03	Active	Threat	PM	09/16/11	Pressure to deliver project on an accelerated schedule	Cost, Scope, Schedule	QUALITY	Probability 3=Med (20-39%) Med Impact 4 =Med		Judy Aguilar (559) 243-3457 Judy Aguilar@dot.ca.gov	Will reevaluate during PS&E	ACCEPT	will work with project team		250 PREPARE FINAL STRUCTURES PS&E PACKAGE	
4	06-0K810-04	Active	Threat	ENV	10/13/11	Need for Public Hearing	Public request hearing	TIME	Probability 3=Med (20-39%) Med Impact 4 =Med	6 months	Kirsten Helton (559) 445-6282 Kirsten Helton@dot.ca.gov	Public request hearing	ACCEPT	Conduct Public Hearing		175 CIRCULATE DRAFT ENVIRONMENTAL DOCUMENT AND SELECT PREFERRED PROJECT ALTERNATIVE IDENTIFICATION □180	
5	06-0K810-05	Active	Threat	DESIGN	10/24/11	Utility Conflict	Permit search needed	TIME	Probability 3=Med (20-39%) Med Impact 4 =Med		Ali Alqatami (559) 243-3475 Ali Alqatami@dot.ca.gov	Utility involvement	ACCEPT	Conduct Permit Search during PA&ED			
6	06-0K810-06	Active	Threat	DESIGN	10/24/11	Water diversion needed	Calloway Canal Bridge not dry	COST	Probability 3=Med (20-39%) Med Impact 4 =Med		Ali Alqatami 5592433475 Ali Alqatami@dot.ca.gov	Wet season, the canal is not dry	MITIGATE	Divert the water during construction			
7									Probability Impact								